Table 2.3.E Earthwork Truck Hours by Alternative

Alternative	Truck Hours			
	Earthwork Balance	Imported Borrow	Disposal Off Site	Total Truck Hours
4 Modified	277,620	718,245	0	995,865
5 Modified	205,681	806,865	0	1,012,546
9 Modified	592,218	297,388	0	889,606

Source: Jacobs Engineering, 2011.

project construction will be hauled from the project limits on designated State and local truck routes. Other measures to address short-term impacts due to earthwork haul truck traffic are provided in:

- Measure TR-1 (Traffic Management Plan) as discussed in Section 3.6, Traffic and Transportation/Pedestrian and Bicycle Facilities.
- Measures AQ-1 (Fugitive Dust Source Controls) and AQ-2 (Mobile and Stationary Source Controls) as discussed in Section 3.14, Air Quality.
- Measures N-2 (Construction Noise) and N-3 (Noise Ordinances) as discussed in Section 3.15, Noise.

There will not be a need for temporary staging and/or stockpile areas outside of the designated footprint of disturbance for the MCP project.

2.3.2.15 New and Modified Access to the Interstate Highway System

All three of the MCP Build Alternatives propose new and modified access to I-215 with a new I-215/MCP freeway-to-freeway interchange, a new I-215/Placentia Avenue interchange, and a modified I-215/Cajalco-Ramona Expressway interchange. The Supplemental New Connection Report recommended Alternative 9 Modified as the alternative in the request for new and modified accesses. The Supplemental New Connection Report for the MCP Interchange on I-215 was submitted to FHWA in 2011, and on August 17, 2012, FHWA issued a letter of conceptual acceptability (conditional approval). Upon "acceptability" of this Supplemental New Connection Report, the May 2008 "acceptability" for the original New Connection Report should be rescinded. Alternative 9 Modified SJRB DV (the preferred alternative) is the alternative that was addressed in the Supplemental New Connection Report and which received conceptual acceptability on August 17, 2012. The next step is final FHWA approval of the New Connection Report, which would occur after the NEPA process is completed with the Record of Decision (ROD) and after FHWA verifies that the design of the preferred

alternative addressed in the ROD matches the design of the alternative which received conditional acceptability on August 17, 2012.

2.3.2.16 Changes to Local Circulation

All MCP Build Alternatives will result in local street closures adjacent to the proposed alternative alignment. A list of local circulation changes associated with each Build Alternative is show in Appendix I, Attachment G. In addition, figures have been included in Appendix I, Attachment G, that show key assumptions of how traffic demand would be handled on major roadways with implementation of the MCP Build Alternatives, including assumptions for Placentia Avenue and the Riverside County General Plan Circulation Element roadways.

2.3.2.17 Project Design Features to Minimize Environmental Impacts

Initially, the alignments for each of the MCP Build Alternatives were routed to take into consideration avoidance of waters and wetlands, existing reserves, and known cultural sites, while meeting Caltrans geometric design standards. The *Draft USACE Special Area Management Plan* (SAMP) data (Lichvar et al., 2003; Lichvar and Ericsson, 2004; Smith, 2003) were initially used, which provided a useful landscape-level view of the waters and wetlands within the composite MCP project footprint. The alignments were designed to avoid these areas as much as possible. In locations where realignment was not practical, bridges and, in some cases, retaining walls were used to avoid the waters and wetlands. When the updated *Jurisdictional Delineation and Assessment Report* for the MCP project was completed in 2013, the project-specific data were compared with the SAMP data to ensure jurisdictional areas were avoided as much as possible.

As a result, all of the MCP Build Alternatives include several project design features intended to avoid or minimize potential environmental impacts on wildlife, the aquatic environment, and other natural resources. These project design features include bridges to cross water, and/or wildlife habitat, bridges or structures for wildlife undercrossings, and culverts for combined uses as wildlife and drainage undercrossings. Bridges to cross water and/or wildlife habitat are discussed earlier in Section 2.3.2.4; detailed information for culverts is provided below. Project design features also include BMPs as discussed earlier in this section to minimize impacts to waters of the United States. Locations of these BMPs are included on Figure 3.10.3 in Section 3.10, Water Quality and Storm Water Runoff, of this Final EIR/EIS.

Drainage Culverts

In addition to the structures described earlier in this chapter, culvert improvements have been proposed along each of the MCP Build Alternatives. All drainage facilities would be designed consistent with the Master Plan for the San Jacinto River Basin. The number of new culverts and existing culverts to be extended, removed, or protected in place for each Build Alternative is shown in Table 2.3.F. The locations for culverts sized for drainage are shown on maps in Appendix I, Attachment E. These structures are placed to reduce fill in the water crossings but may also be used by some small animals for wildlife crossings.

Table 2.3.F Proposed Culverts

Alternative	Number of Culvert Improvements			
	Extended	Removed	Protected in Place	New
4 Modified	20	24	10	43
5 Modified	17	23	12	42
9 Modified	18	25	14	35
4 Modified with SJN DV	19	22	10	47
5 Modified with SJN DV	16	21	12	48
9 Modified with SJN DV	17	23	14	39

Source: Preliminary Drainage Report, March 2011.
SJN DV = San Jacinto North Design Variation

2.3.2.18 Construction

Construction of any of the MCP Build Alternatives is estimated to take approximately 48 months, which assumes the project is constructed at one time. Therefore, the analyses included in this Final EIR/EIS assume construction of the project at one time and the worst-case scenario of potential impacts for such construction ("worst-case" in that the impacts would be concentrated within the 48-month period). This assumption is based on the fact that the project is now fully funded in the 2015 FTIP (see Appendix K).

However, while this document assumes the project will be constructed at one time and has conducted its analyses as such, RCTC received several comments on the Draft EIR/EIS circulated in October 2008 for the 32-mile MCP requesting additional information on when the "west" segment (I-15 to I-215) versus the "east" segment (I-215 to SR-79) would be constructed and what interim effects on traffic conditions might result from constructing the project in phases. Therefore, to be responsive to public comment and should funding not have been available to construct the project at one time, RCTC developed a potential phasing plan for construction that could provide early benefits to the traveling public by constructing the project in phases. As an FHWA Major

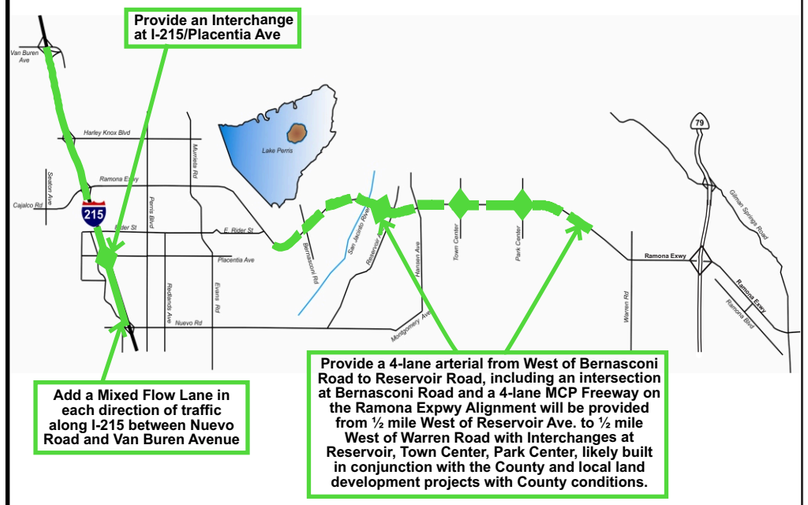
Project, if the MCP project is constructed in phases, it must meet FHWA's Major Project Guidance for operational independence, non-concurrent construction, and advancing the project purpose and need. Coordination with FHWA will be required prior to each phase to determine that the FHWA Major Project Guidance is met for that phase.

This Final EIR/EIS includes a description of the potential phasing plan presented in the Recirculated Draft EIR/Supplemental Draft EIS for informational purposes only, because the project is now fully funded in the 2015 FTIP. Also presented is a traffic phasing analysis for 2020 and 2030 conditions in addition to the traffic analysis for the build and no build conditions in 2040 (see Section 3.6 Traffic and Transportation/Pedestrian and Bicycle Facilities). The purpose of the traffic phasing analysis was to provide general information on the expected traffic forecasts and roadway improvements that would be provided should the MCP project be built in phases. All other impact discussions assume construction of the project at one time, as this would be the worst-case scenario for impacts to the human, physical, and biological environment.

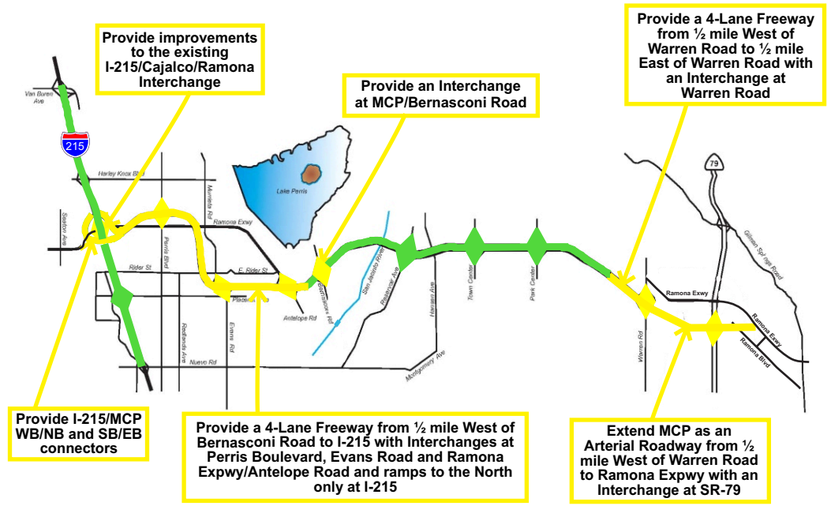
Potential Phasing Plan

The following summarizes the potential phasing plan for all MCP Build Alternatives. Each phase consists of improvements that would provide independent utility, have logical termini, and advance the project purpose and need should funding not be available to construct the project at one time; also see Figures 2.3.6a through 2.3.6c. Each phase assumes local and regional roadway improvements in the project study area to have been completed by other projects if they are included in local and regional plans including but not limited to: Southern California Association of Governments (SCAG) Regional Transportation Plan and City/County 5-year Capital Improvement Programs.

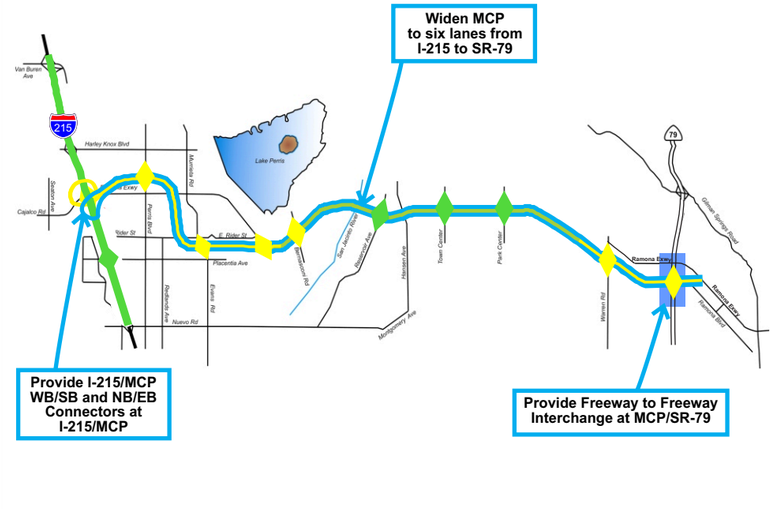
- **Initial Phase (Opening Day):** The initial phase of the project could be built by 2020 and would include the following improvements: (1) a service interchange at I-215/ Placentia Avenue providing access to I-215 to and from Placentia Avenue; (2) one additional lane in each direction on I-215 from Nuevo Road to Van Buren Boulevard; and (3) a four-lane arterial from west of Bernasconi Road to Reservoir Avenue, including an intersection with Bernasconi Road, and a four-lane MCP freeway from west of Reservoir Avenue to west of Warren Road, including service interchanges at Reservoir Avenue, Town Center Boulevard, and Park Center Boulevard (these improvements would likely be built in conjunction with Riverside County and other local land development projects with County conditions).



Phase 1-Year 2020 Proposed Improvements



Phase 2-Year 2030 Proposed Improvements



Phase 3-Year 2030 to 2040 Proposed Improvements

Phase 1 (2020)
Phase 2 (2030)
Phase 3 (2040)

Figure 2.3.6a

Potential Phasing Plan-Alternative 4 Modified

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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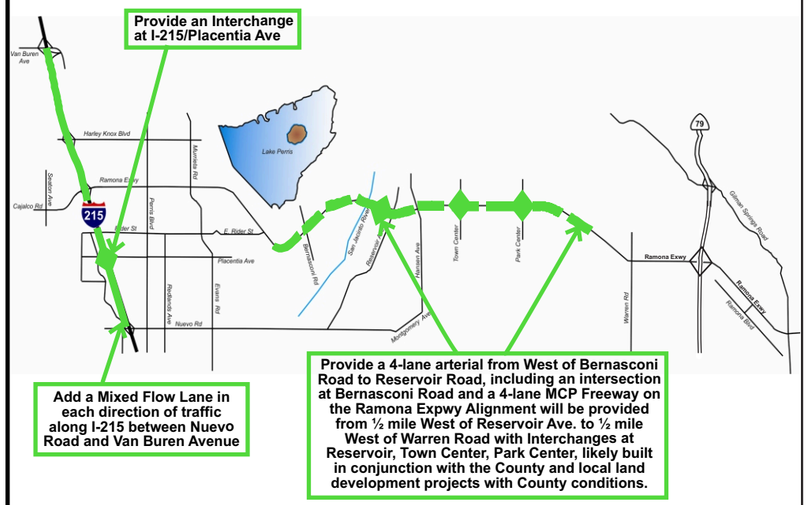
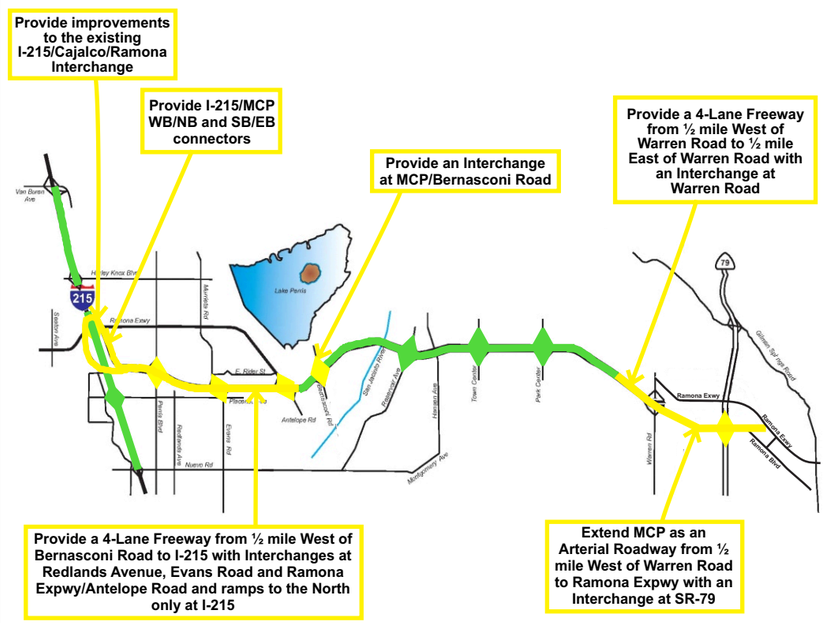
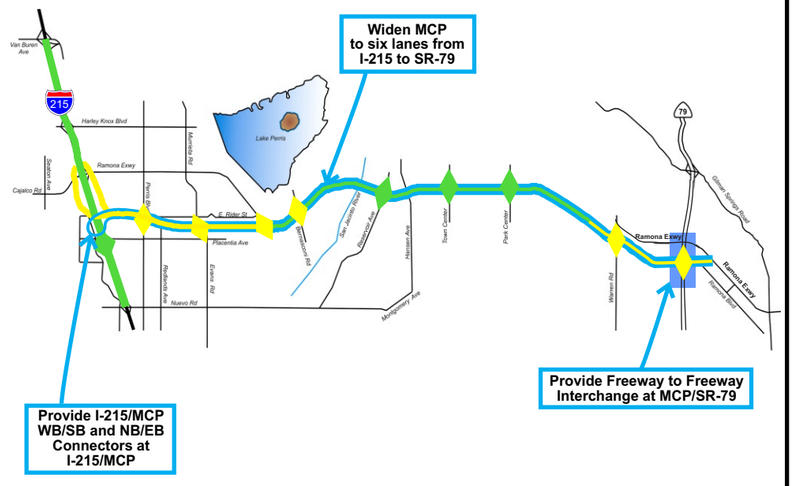


Phase 1-Year 2020 Proposed Improvements



Phase 2-Year 2030 Proposed Improvements



Phase 3-Year 2030 to 2040 Proposed Improvements

Phase 1 (2020)
Phase 2 (2030)
Phase 3 (2040)

Figure 2.3.6b

Potential Phasing Plan-Alternative 5 Modified

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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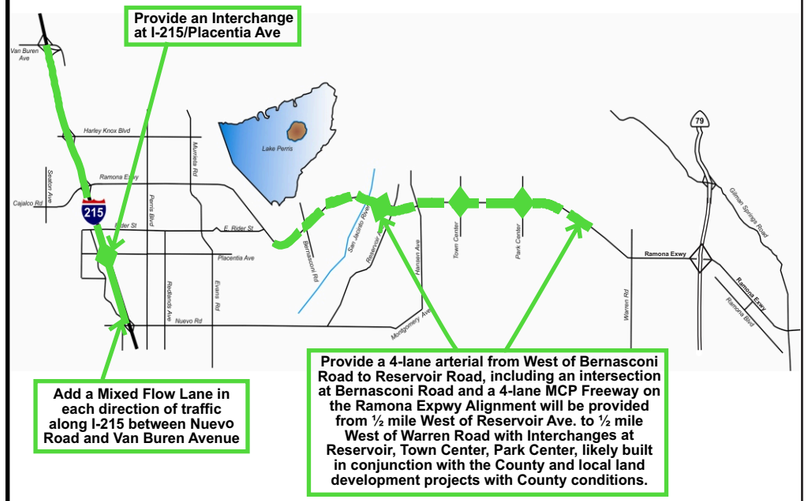
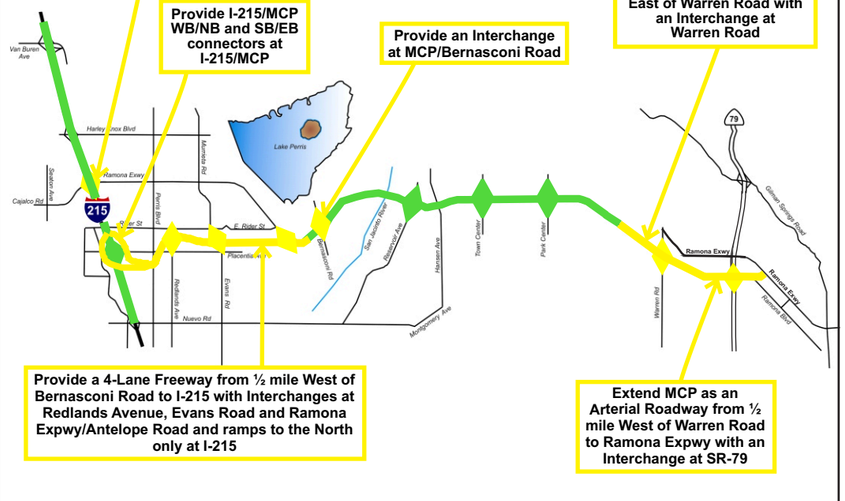
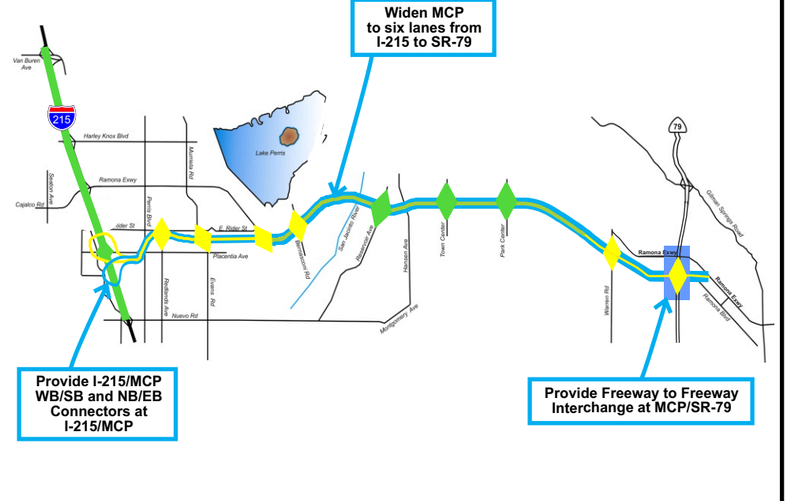


Phase 1-Year 2020 Proposed Improvements



Phase 2-Year 2030 Proposed Improvements



Phase 3-Year 2030 to 2040 Proposed Improvements

Phase 1 (2020)
Phase 2 (2030)
Phase 3 (2040)

Figure 2.3.6c

Potential Phasing Plan-Alternative 9 Modified

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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The four-lane facility from Bernasconi Road to Warren Road, would leave the existing two-lane Ramona Expressway in place and add two lanes to the south of the existing Ramona Expressway. The existing Ramona Expressway lanes would carry westbound traffic and the two new lanes of eastbound traffic. The two new lanes would be constructed at the location and elevation of the ultimate MCP. Existing Ramona Expressway is four or more through lanes from I-215 to west of Bernasconi Road and four lanes from west of Warren Road to the future SR-79 alignment. The existing Ramona Expressway between Bernasconi Road and Warren Road is two lanes.

- **Second Phase:** The second phase of the project could be built by 2030 and would include the following improvements: (1) the MCP systems interchange at I-215 that would include only the southbound I-215 to eastbound MCP and the westbound MCP to northbound I-215 ramps; (2) a four-lane MCP freeway from I-215 to west of Bernasconi Road, including service interchanges at Perris Boulevard or Redlands Avenue, Evans Avenue, Ramona Expressway/Antelope Road, and Bernasconi Road (locations differ by MCP Build Alternative); and (3) a four-lane MCP freeway from west of Warren Road to SR-79, including a service interchange at Warren Road, an intersection with Sanderson Avenue, and a service interchange with SR-79. This phase would differ by MCP Build Alternative regarding the location where the system interchange would be constructed along I-215 and the completion of the four-lane freeway through the city of Perris; see Figures 2.3.6a through 2.3.6c.
- **Final Phase (Horizon Year):** The final phase of the project could be built by 2040 and would include: (1) the addition of northbound I-215 to eastbound MCP and the westbound MCP to southbound I-215 ramps at the I-215/MCP interchange; (2) widening of the MCP facility to a six-lane freeway from I-215 to SR-79; and (3) a system interchange at SR-79 and MCP. The widening of the MCP from four to six lanes, from I-215 to Bernasconi Road and from Warren Road to SR-79, involves constructing an additional lane on the inside of the two existing lanes in each direction of travel. The widening of the MCP from four lanes to six lanes in the section between Bernasconi Road and Warren Road would involve adding one lane to the inside of the two eastbound lanes built in the initial phase. It would also include removing the two westbound lanes, which are the original Ramona Expressway, and constructing three westbound lanes at the location and elevation of the MCP. See Figures 2.3.6a through 2.3.6c.

Although the MCP project is currently fully funded in the 2015 FTIP, if a decision is made after project approval to construct the MCP project in phases, then RCTC would identify the impacts and needed mitigation measures of a first phase and would compare these to the impacts and mitigation measures addressed and committed to in the Final EIR/EIS through an Environmental Revalidation, which would determine whether a an EIR Addendum, Supplemental EIR, or Subsequent EIR would be required under CEQA, and whether a Supplemental EIS would be required under NEPA. If new adverse impacts or mitigation are identified for the first phase or a subsequent phase, then RCTC would prepare supplemental environmental documentation for approval of that project phase. In addition, the MCP project is considered a "major project" under FHWA guidelines, and it is not unusual for major projects to be constructed in phases due to the size of such a project. If the project is to be constructed in phases, the MCP project phases must meet FHWA Major Project Guidance for operational independence, nonconcurrent construction, and advancing the project purpose and need. This guidance is used to determine if a project can be divided from the scope of work in the NEPA decision document (the Final EIS and Record of Decision) into phases. This determination is made by the FHWA Division Office and the FHWA Project Delivery team prior to initiation of phased construction. Per the Major Project Deliverable Timeline, the Cost Estimate Review, Financial Plan, and Project Management Plan would be re-submitted, approved, and/or updated.

The Supplemental New Connection Report (NCR) Conceptual Acceptability was granted on August 17, 2012, from FHWA for the full build out of the new connection of the MCP at I-215, including a new Placentia Avenue interchange and improvements to I-215 from Nuevo Road to Van Buren Boulevard. The NCR Conceptual Acceptability was required before the approval of the Revised Draft Project Report and circulation of the Recirculated Draft EIR/Supplemental Draft EIS. FHWA approval of an NCR is required after the federal Record of Decision. If a decision is made to construct the MCP project in phases, after project approval, RCTC certification of the Final EIR, and FHWA approval of a Record of Decision, the RCTC will submit the phase of the NCR to be constructed to FHWA for NCR final approval. As subsequent phases are constructed, the process will be repeated, similar to the Cost Estimate Review (CER), Financial Plan, and Project Management Plan.

The regulatory permitting could be authorized for all of the phases under one permit/ agreement/certification from each regulatory agency (USACE, CDFW, and Regional Water Quality Control Board [RWQCB]). Implementation of the mitigation may also be phased, as would be identified in the permit/agreement/certification. Regulatory agencies

may require updated information if phasing is to occur and may also require higher mitigation ratios than if all mitigation obligations were met at the beginning of the construction. Alternatively, the permits could be phased as described above, with acknowledgment by the agencies that each phase is part of a larger project.

2.3.2.19 Railroad Involvement

All MCP Build Alternatives involve the transverse crossing of railroad lines west of I-215. The railroad lines are owned by the RCTC and operated by Burlington Northern Santa Fe (BNSF). The transverse crossings will be expanded at existing crossings at Cajalco Road and Placentia Avenue. All improvements are anticipated to be constructed within existing railroad right of way. However, no new railroad alignments are proposed. Early railroad notification will occur due to the lengthy approval process typically encountered with new or modified railroad crossings. New transverse air space easements are anticipated to be expanded at existing crossings. Temporary Construction Easements (TCEs) are possible at these locations, as well as possible footings easements for structural supports, depending upon design. Construction and maintenance agreements between RCTC and BNSF will also be required.

2.3.2.20 Geotechnical Borings and Utility Potholing

Geotechnical boring and utility potholing activities will be conducted during final design, and the environmental effects of these activities are considered and evaluated in this Final EIR/EIS.

The duration of the geotechnical borings would be 1 day or less at any given geotechnical borehole location. The geotechnical borings typically use small 8-inch-diameter borings drilled with a truck-mounted, hollow-stem auger or mud rotary drill rig to a minimum depth of 75 ft below the existing grade or to a minimum of 50 ft below the invert of the pipe, whichever is deeper. If groundwater is encountered at any borehole locations, a well permit will be obtained, and a well may be installed to monitor groundwater levels at these locations. Any water generated during bailing and surging will be contained in a 55-gallon drum and discharged off site. An engineer or geologist will supervise the boring explorations and monitoring well installations, observe and classify soil samples, and prepare logs of borings. Upon completion, the borings will be backfilled with soil from the excavation.

Utility potholing will be conducted, as needed, within existing local street rights of way to verify locations of underground utilities. Appropriate permits will be obtained from the

affected local jurisdiction, and all potholing activities will be conducted in accordance with those permits.

2.3.2.21 Property Acquisition and Temporary Construction Easements

The MCP project would require the permanent acquisition of right of way. The numbers of full and partial acquisitions for the MCP Build Alternatives are summarized in Section 3.4, Community Impacts, and Appendix O provides the list of parcels identified for acquisition. The Final EIR/EIS provides full environmental evaluation for all property acquisitions and temporary construction easements.

2.3.2.22 Property Acquisition and Temporary Construction Easement

Design and Construction Activities

The MCP Build Alternatives are currently expected to be implemented by RCTC in a design-bid-build process. The design-bid-build process of MCP Build Alternatives will include the activities described in the following sections. The activities described here were included in the analysis of the potential project impacts provided in this EIR/EIS.

- **Design and Pre-Construction Activities**
  - Preparation of final design
  - Preparation of modifications to the final design over time, as appropriate, based on updated knowledge about conditions in the field and other factors to result in an improved design and the most efficient construction process
  - Development of a project management plan
  - Development of a project baseline schedule
  - Development of a Pedestrian and Trail Facilities Temporary Closure Plan
  - Coordination with the BNSF Railroad
  - Coordination with Caltrans and affected local agencies
  - Coordination with March Joint Powers Authority regarding the influence area
  - Development of a project corridor master plan for landscape/hardscape design
  - Development of a project landscape plan
  - Development of a facility lighting plan
  - Development of project transportation management plan
  - Coordination with utility providers and appropriate potholing and other activities to locate and clearly mark the types and locations of all utility facilities in the project disturbance limits
  - Processing of a Conditional Letter of Map Revision

- Coordination with utility providers on protection in-place, relocation, and/or removal of utility facilities in the disturbance limits
- Acquisition of right of way required for the MCP project
- Coordination with permitting resource agencies
- Demolition of existing structures located with the MCP project right of way
- Ongoing coordination with emergency services providers (police, fire, medical, and the California Highway Patrol [CHP]) and local jurisdictions regarding detours and other traffic conditions during construction
- Execution of detailed soils, geotechnical testing, and Final Geotechnical Report
- Development of a blasting plan (if required)
- Development of a Paleontological Mitigation Plan
- Execution of hazardous waste contamination testing, as needed
- Execution of detailed property surveys
- Conduct of an existing project site survey and photo documentation

- **Construction Activities**
  - Installation of fencing around construction and staging areas
  - Delineation of disturbance limits and any Environmentally Sensitive Areas or other areas to be avoided
  - Clearing, grading, and preparation of the field office location(s) and staging areas
  - The setup of field office(s) and staging areas for equipment, materials, waste materials, etc.
  - Moving construction equipment to the staging areas and around the construction areas
  - Importing construction materials to the staging areas and moving materials to where they are needed during construction of specific project components
  - Remediation of known hazardous waste contamination within the state right of way
  - Implementation of BMPs on an ongoing basis, consistent with the needs of each construction activity
  - Protection in-place, relocation, and removal of utility facilities in the project disturbance limits
  - Ongoing coordination with emergency services providers and local jurisdictions regarding detours and other traffic conditions and installation of appropriate signing, lane marking, and other information to direct traffic around and through the construction areas

- Implementation of ramp and lane closures, as needed, throughout the construction period
- Clearing of vegetation from construction areas
- Construction of noise walls
- Grading and construction of cut-and-fill slopes
- Construction of bridges and overpasses
- Construction of ramps
- Construction of local access roads
- Construction of project aesthetic features and landscaping
- Construction of drainage facilities
- Construction of retaining walls
- Construction of travel lanes and shoulders
- Installation of directional lighting, traffic control systems, and signs
- Construction of improvements on local roads

2.3.3 Unique Features of MCP Build Alternatives

2.3.3.1 Alternative 4 Modified

As discussed earlier in this section, the MCP Build Alternatives cross the Perris Drain. However, Alternative 4 Modified is unique in that it proposes a 1.8-mile-long bridge to avoid impacting the floodplain in the Perris Drain area. The portion of the alignment that crosses over the Perris Drain crosses at a diagonal for an approximate length of 0.45 mile. The crossing of the Perris Drain spans it in such a way that the impact from a 100-year flood event would not increase the water surface elevation by more than 1 ft. The bridge crossing of the Perris Drain accommodates all previously proposed alternative improvements to the Perris Drain with no adverse impacts to hydraulics. The proposed bridge minimizes floodplain encroachment. The proposed culverts in this area are between 24 and 35 inches in diameter.

2.3.3.2 Alternative 9 Modified

This alternative would depress the MCP project below existing ground level along Placentia Avenue, from Barrett Avenue to Wilson Avenue, to decrease visual impacts to the surrounding area. The depressed alignment includes a detention basin designed to hold the runoff from a 100-year, 24-hour storm event. Any storm water in the detention basin will be pumped out at the end of the storm into a 22.0 ft wide by 7.5 ft high concrete channel that drains into the Perris Drain.

As discussed previously, Alternative 9 Modified also includes a service interchange at Redlands Boulevard rather than Perris Boulevard, as included for Alternatives 4 Modified and 5 Modified. The service interchange is located at Redlands Boulevard for Alternative 9 Modified to allow for sufficient distance between the service interchange and the system interchange at I-215 and to allow drivers access to the Cajalco Road/Ramona Expressway/I-215 interchange via the I-215.

2.3.4 No Build/No Action Alternatives

This section discusses two No Build/No Action Alternatives and one Section 404 No Action Alternative that are based on different assumptions of background conditions and transportation improvements. Alternative 1A is provided to compare with-MCP project conditions to existing conditions at the time the environmental analyses were conducted, as required under CEQA. Alternative 1B is provided to compare future conditions with improvements to Ramona Expressway but without the MCP project to conditions with the MCP project. The Section 404 No Action Alternative specifically assesses a MCP Build Alternative that would fully avoid the placement of dredge or fill within waters of the United States. Alternatives 1A and 1B were evaluated for all the environmental parameters evaluated in Chapter 3. The Section 404 No Action Alternative was evaluated only for impacts related to waters of the United States.

2.3.4.1 Alternative 1A: No Build/No Action—Existing Ground Conditions

Alternative 1A represents 2040 traffic on the planned street network without future improvements to Ramona Expressway, which would remain as it exists today. Specifically, improvements to Ramona Expressway as shown in the adopted Riverside County General Plan Circulation Element (2008) and the MCP project would not be implemented with the No Build/No Action Alternative 1A. The future west-east traffic in the study area would be served by the existing Ramona Expressway between I-215 and SR-79. This alternative assumes 2040 land use conditions and implementation of planned improvements to the regional and local circulation system (with the exception of improvements to Ramona Expressway and the MCP project), as accounted for in the adopted Riverside County General Plan (2008), RCTC's Measure A program, and other adopted plans and policies.

Alternative 1A was not developed to meet the defined project purpose. It was developed specifically to allow for comparison of future with-project conditions to the existing ground conditions in the study area as required under CEQA. As a result, Alternative 1A would not meet the defined purpose for the project because it would not provide increased capacity to support the forecast travel demand in 2040, would not provide a

limited access facility, would not provide roadway geometrics to meet state highway design standards, would not accommodate Surface Transportation Assistance Act National Network trucks, and would not provide a facility that is compatible with a future multimodal transportation system.

2.3.4.2 Alternative 1B: No Build/No Action—General Plan Circulation Element Conditions

Alternative 1B represents 2040 traffic levels on the planned street network based on the Circulation Element in the adopted Riverside County General Plan, including improvements to Ramona Expressway. Construction of the MCP project would not be implemented with No Build/No Action Alternative 1B. This alternative is the same as Alternative 1A but includes implementation of improvements to Ramona Expressway consistent with the adopted Riverside County General Plan Circulation Element. Specifically, under Alternative 1B, Ramona Expressway would be widened to a six-lane arterial street as needed to meet expected traffic demand. These improvements would result in the construction of a six-lane roadway along Ramona Expressway between I-215 and SR-79. Alternative 1B was not developed to meet the defined project purpose. It was developed specifically to allow for comparison of future with-project conditions to the future without-project ground conditions in the study area. As a result, although Alternative 1B would provide increased capacity compared to existing conditions, it would not provide a limited access facility, would not provide roadway geometrics to meet state highway design standards; would not accommodate Surface Transportation Assistance Act National Network trucks, and would not provide a facility that is compatible with a future multimodal transportation system.

2.3.4.3 Section 404 No Action Alternative

In addition to Alternatives 1A and 1B, a specific Section 404 No Action Alternative (avoidance alternative) was developed for purposes of compliance with the Section 404(b)(1) Guidelines and USACE regulations (33 CFR 325, Appendix B). The Section 404 No Action Alternative includes measures needed (e.g., bridges) to fully avoid the placement of dredge or fill within waters of the United States. That is, the Section 404 No Action Alternative represents the one alternative that results in no construction requiring a Section 404 permit from USACE. It may be brought by the applicant electing to modify the proposal to eliminate work under the jurisdiction of the USACE or by the denial of the permit. The discussion of the Section 404 No Action Alternative (avoidance alternative) is provided below and is also included in the Section 404(b)(1) Alternative Analysis in Appendix M.

Several alignments were analyzed for the Section 404 No Action Alternative, and it was determined that no feasible alignment exists within the project study area that would completely avoid waters of the United States. As a result, the Section 404 No Action Alternative follows the proposed alignment for Alternative 9 Modified, but provides for bridge structures to be built over the majority of water crossings in order to fully avoid dredge or fill within waters of the United States. Alternative 9 Modified was chosen as the base for the Section 404 No Action Alternative because it is the Build Alternative with the least impact to waters of the United States. The alignment and proposed interchange locations for the Section 404 No Action Alternative are identical to those of Alternative 9 Modified. Implementation of the Section 404 No Action Alternative would necessitate revisions to 9 planned bridge structures that would require longer spans and the placement of 34 additional bridge structures to completely avoid waters of the United States. However, the Section 404(b)(1) Alternatives Analysis concludes that the Section 404 No Action Alternative cannot be considered practicable because it would add an additional cost of $340 million (approximately 21 percent more than Alternative 9 Modified) and has thus been determined to be unreasonably expensive. Please refer to the NEPA/404 Preliminary LEDPA information package in Appendix M for detailed cost information on the Section 404 No Action Alternative.

2.4 Comparison of Alternatives

This section presents the comparison of alternatives provided in the 2013 Recirculated Draft EIR/Supplemental Draft EIS, and restates project costs and other information as provided in that document.

Table 2.4.A provides a comparison of costs between the three MCP Build Alternatives broken down by major funding categories. Table 2.4.B provides a comparison of the key features and potential environmental effects of the No Build Alternatives and Alternatives 4 Modified, 5 Modified, and 9 Modified. Table 2.4.B focuses on the evaluation criteria originally developed in 2004 by the Resource Agency Coordination group to be studied in the EIR/EIS process. In 2011, the Resource Agency Coordination group provided agreement under the 2006 NEPA CWA Section 404 MOU for continued use of the evaluation criteria for the Recirculated Draft EIR/Supplemental Draft EIS. The Executive Summary of this Final EIR/EIS also provides a comparison of the MCP Alternatives.

Table 2.4.A Cost Breakdown for the MCP Build Alternatives

Category	Estimated Cost Breakdown (billions of dollars)		
	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified
Engineering	0.42	0.34	0.32
Construction (Build Cost)	2.10	1.72	1.61
Right of Way	0.20	0.21	0.19
Roadway and Structures	1.79	1.40	1.31
Environmental Mitigation	0.11	0.11	0.11
Total Cost	**$2.52**	**$2.07**	**$1.94**

Source: Jacobs Engineering (2012).
Note: The San Jacinto River Bridge Design Variation would result in a reduction in the cost of the MCP project by approximately $34 million. The San Jacinto North Design Variation would result in a reduction of the cost of the MCP Project by approximately $80 million.
MCP = Mid County Parkway

The remainder of this section describes in detail the process based on the NEPA/404 MOU used to evaluate the three Build Alternatives and identify a preferred alternative. As noted at the beginning of this chapter, that detailed analysis lead to the identification of Alternative 9 Modified, with the San Jacinto River Bridge Design Variation, as the preferred MCP project alternative. As a result, Table 2.4.B includes key information regarding the performance and effects of the Build Alternatives, including the preferred alternative, as an introduction to the detailed analysis provided in the following sections.

2.5 Identification of a Preferred Alternative

As the CEQA and NEPA lead agencies, respectively, RCTC and FHWA identified a Preferred Alternative after comments were received from the public and agencies during the public review period of the Recirculated Draft EIR/Supplemental Draft EIS in a process described in the following sections. That process was based on detailed evaluation to determine the Least Environmentally Damaging Practicable Alternative (LEDPA) as required under the NEPA/404 MOU, as described in detail in the following sections.

2.5.1 Local Governments and Organizations

In its March 21, 2013, comment letter on the Recirculated Draft EIR/Supplemental Draft EIS, the City of San Jacinto reiterated its preference for the base case southerly alignment connecting to SR-79, rather than the SJN DV, as a locally preferred alternative. However, both alignments are shown in the City of San Jacinto General Plan Circulation Element (2006). The City of San Jacinto has not stated a preference over Alternatives 4 Modified, 5 Modified, or 9 Modified. In its March 21, 2013, comment letter, the City also

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	**Preferred Alternative (Alternative 9 Modified with the SJRB DV)**
Project Purpose and Need/Project Objectives	No	No	Yes	Yes	Yes	Yes
System Interchanges	None	None	I-215 and SR-79	I-215 and SR-79	I-215 and SR-79	I-215 and SR-79
Access *(Location of local interchanges)*	None	None	I-215/Placentia Avenue Perris Boulevard Evans Road Ramona Expressway/ Antelope Road Bernasconi Road Reservoir Road Town Center Boulevard Park Center Boulevard Warren Road	I-215/Placentia Avenue Perris Boulevard Evans Road Ramona Expressway/ Antelope Road Bernasconi Road Reservoir Road Town Center Boulevard Park Center Boulevard Warren Road	I-215/Placentia Avenue Redlands Boulevard Evans Road Ramona Expressway/ Antelope Road Bernasconi Road Reservoir Road Town Center Boulevard Park Center Boulevard Warren Road	I-215/Placentia Avenue Redlands Boulevard Evans Road Ramona Expressway/ Antelope Road Bernasconi Road Reservoir Road Town Center Boulevard Park Center Boulevard Warren Road
Design Variations	None	None	San Jacinto River Bridge San Jacinto North	San Jacinto River Bridge San Jacinto North	San Jacinto River Bridge San Jacinto North	San Jacinto River Bridge Design Variation
Travel Pattern Disruptions (Ranking: 1 Least impacting, 3 Most impacting)	No impact	No impact	1	2	3	3
Wetlands and Other Waters of the U.S.	No impact	No impact	CDFW: • 5.48 ac temporary impacts • 9.23 ac permanent impacts USACE: • 2.28 ac temporary impacts to non-wetland waters • 5.01 ac permanent impacts to non-wetland waters	CDFW: • 3.96 ac temporary impacts • 9.19 ac permanent impacts USACE: • 1.41 ac temporary impacts to non-wetland waters • 5.18 ac permanent impacts to non-wetland waters	CDFW: • 4.69 ac temporary impacts • 9.00 ac permanent impacts USACE: • 1.63 ac temporary impacts to non-wetland waters • 5.03 ac permanent impacts to non-wetland waters	CDFW: • 4.69 ac temporary impacts • 9.00 ac permanent impacts USACE: • 1.63 ac temporary impacts to non-wetland waters • 5.03 ac permanent impacts to non-wetland waters

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	**Preferred Alternative (Alternative 9 Modified with the SJRB DV)**
			• 3.78 ac temporary impacts to wetland waters • 2.18 ac permanent impacts to wetland waters	• 3.11 ac temporary impacts to wetland waters • 2.11 ac permanent impacts to wetland waters	• 3.63 ac temporary impacts to wetland waters • 2.15 ac permanent impacts to wetland waters	• 3.63 ac temporary impacts to wetland waters 2.15 ac permanent impacts to wetland waters
Floodplain Impacts	No impact	No impact	• Perris Valley Storm Drain: longitudinal encroachment • San Jacinto River at Lakeview: transverse encroachment • San Jacinto River at SR-79: longitudinal encroachment	• Perris Valley Storm Drain: transverse encroachment • San Jacinto River at Lakeview: transverse encroachment • San Jacinto River at SR-79: longitudinal encroachment	• Perris Valley Storm Drain: transverse encroachment • San Jacinto River at Lakeview: transverse encroachment • San Jacinto River at SR-79: longitudinal encroachment	• Perris Valley Storm Drain: transverse encroachment • San Jacinto River at Lakeview: transverse encroachment • San Jacinto River at SR-79: longitudinal encroachment
Water Quality and Erosion Control BMPs	None	None	• 2 bioswales (permanent) • 37 infiltration basins (permanent) • 13 stream crossings (temporary) • 1,153 ac of maximum disturbed area (temporary) • 525 ac of new pavement (permanent) • Permanent decrease annual loading with implemented BMPs	• 2 bioswales (permanent) • 41 infiltration basins (permanent) • 11 stream crossings (temporary) • 1,145 ac of maximum disturbed area (temporary) • 516.9 ac of new pavement (permanent impact) • Permanent decrease annual loading with implemented BMPs	• 2 bioswales (permanent) • 36 infiltration basins (permanent) • 11 stream crossings (temporary) • 1,091 ac of maximum disturbed area (temporary) • 479.5 ac of new pavement (permanent) • Permanent decrease annual loading with implemented BMPs	• 2 bioswales (permanent) • 36 detention (infiltration) basins (permanent) • 11 stream crossings (temporary) • 1,094.5 ac of maximum disturbed area (temporary) • 479.5 ac of new pavement (permanent) • Permanent decrease annual loading with implemented BMPs

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	Preferred Alternative (Alternative 9 Modified with the SJRB DV)
Threatened and Endangered Species	No impact	No impact	Permanent impacts: • 3.66 ac of least Bell's vireo habitat • 2.9 ac of final SBKR critical habitat (2002) • 4.25 ac of occupied SBKR critical habitat • 0.36 ac of occupied San Jacinto valley crownscale habitat • 1.09 ac of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements • 16.5 ac Spreading Navarretia, Final Critical Habitat (10/7/2010) Total • 142.2 ac of Stephens' Kangaroo Rat habitat (Riversidean Upland Sage Scrub and grassland communities)	Permanent impacts: • 3.66 ac of least Bell's vireo habitat • 2.9 ac of final SBKR critical habitat (2002) • 4.25 ac of occupied SBKR critical habitat • 0.36 ac of occupied San Jacinto valley crownscale habitat • 1.09 ac of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements • 16.5 ac Spreading Navarretia, Final Critical Habitat (10/7/2010) Total • 138.4 ac of Stephens' Kangaroo Rat habitat (Riversidean Upland Sage Scrub and grassland communities)	Permanent impacts: • 3.66 ac of least Bell's vireo habitat • 2.9 ac of final SBKR critical habitat (2002) • 4.25 ac of occupied SBKR critical habitat • 0.36 ac of occupied San Jacinto valley crownscale habitat • 1.09 ac of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements • 16.5 ac Spreading Navarretia, Final Critical Habitat (10/7/2010) Total • 145.6 ac of Stephens' Kangaroo Rat habitat (Riversidean Upland Sage Scrub and grassland communities)	Permanent impacts: • 3.6 ac of least Bell's vireo habitat • 1.5 ac of final SBKR critical habitat (2002) • 1.29 ac of occupied SBKR critical habitat • 0.36 ac of occupied San Jacinto valley crownscale habitat • 1.09 ac of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements • 18.6 ac spreading Navarretia, Final Critical Habitat (10.7/2010) Total • 194.3 ac of Stephens' Kangaroo Rat habitat (Riversidean Upland Sage Scrub and grassland communities)

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	Preferred Alternative (Alternative 9 Modified with the SJRB DV)
Plant Communities	No impact	No impact	• 92.5 ac permanent impacts to Riversidean upland sage scrub • 20.6 ac permanent impacts to San Jacinto alkali communities • 2.7 ac permanent impacts to riparian/riverine areas/habitats • 2.7 ac temporary impacts to riparian/riverine areas/habitats	• 89.4 ac permanent impacts to Riversidean upland sage scrub • 20.6 ac permanent impacts to San Jacinto alkali communities • 2.6 ac permanent impacts to riparian/riverine areas/habitats • 2.7 ac temporary impacts to riparian/riverine areas/habitats	• 87.0 ac permanent impacts to Riversidean upland sage scrub • 20.6 ac permanent impacts to San Jacinto alkali communities • 2.7 ac permanent impacts to riparian/riverine areas/habitats • 2.7 ac temporary impacts to riparian/riverine areas/habitats	• 87.0 ac permanent impacts to Riversidean upland sage scrub • 26.6 ac permanent impacts to San Jacinto alkali communities • 2.4 ac permanent impacts to riparian/riverine areas/habitats • 2.7 ac temporary impacts to riparian/riverine areas/habitats
Section 4(f) Resources	No impact	No impact	• Permanent use of 2.6 ac of a Multi-Use Prehistoric Site 33-16598 • Permanent use of Sites 33-19862, 33-19863, 33-19864, and 33-19866. • Temporary impacts to trails during construction	• Permanent use of 2.6 ac of a Multi-Use Prehistoric Site 33-16598 • Permanent use of Sites 33-19862, 33-19863, 33-19864, and 33-19866. • 0.011 ac temporary construction easement for Liberty Park • Temporary impacts to trails during construction	• Permanent use of 2.6 ac of a Multi-Use Prehistoric Site 33-16598 • Permanent use of Sites 33-19862, 33-19863, 33-19864, and 33-19866. • 0.097 ac temporary construction easement for Liberty Park • Temporary impacts to trails during construction	• Permanent use of 2.6 ac of a Multi-Use Prehistoric Site 33-16598 • Permanent use of Sites 33-19862, 33-19863, 33-19864, and 33-19866. • 0.097 ac temporary construction easement for Liberty Park • Temporary impacts to trails during construction

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	Preferred Alternative (Alternative 9 Modified with the SJRB DV)
Cultural Resources	No impact	No impact	• Adverse effects to the following sites: 33-16598, 33-19862, 33-19863, 33-19864, and 33-19866.	• Adverse effects to the following sites: 33-16598, 33-19862, 33-19863, 33-19864, and 33-19866.	• Adverse effects to the following sites: 33-16598, 33-9862, 33-19863, 33-19864, and 33-19866.	• Adverse effects to the following sites: 33-16598, 33-9862, 33-19863, 33-19864, and 33-19866.
Land Use Impacts						
Consistency with General Plans	No impact	No impact	Requires a General Plan Amendment	Requires a General Plan Amendment	Requires a General Plan Amendment	Requires a General Plan Amendment
Farmlands Impacts	No impact	No impact	Permanent impacts to 1,107 ac of mapped farmlands	Permanent impacts to 1,061 ac of mapped farmlands	Permanent impacts to 1,041 ac of mapped farmlands	Permanent impacts to 1,043 ac of mapped farmlands
Community Impacts						
Residential Property Acquisitions	No impact	No impact	48	36	102	99
Number of Residents Displaced	No impact	No impact	426	373	659	396
Businesses Displaced	No impact	No impact	68	90	37	100
Number of Employees Displaced	No impacts	No impacts	350	1,129	188	495
Impacts to Schools	No impacts	No impacts	Direct impact to portable classrooms of Val Verde High School and Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris)	Direct impact to portable classrooms of Val Verde High School and Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris)	No direct impact to schools.	No direct impact to schools.
Environmental Justice Concerns	No impact	No impact	No disproportionate impacts to low income/minority populations	Disproportionate impacts to low income/minority populations	No disproportionate impacts to low income/minority populations	No disproportionate impacts to low income/minority populations

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	Preferred Alternative (Alternative 9 Modified with the SJRB DV)
Air Quality	No impact	No impact	Permanent concentrations would not exceed the 1-hour or 8-hour CO standards. Would not create a new, or worsen, an existing, PM_{10} or $PM_{2.5}$ violation. Permanent increase for MSAT emissions within the MCP project vicinity compared to the No Build conditions is negligible (no increase higher than 1.1 pounds per day). Peak daily construction emissions: • 119 tons/day of CO • 20.2 tons/day of ROG • 137 tons/day of NO_X • 90.5 tons/day of Total PM_{10}	Permanent concentrations would not exceed the 1-hour or 8-hour CO standards. Would not create a new, or worsen, an existing, PM_{10} or $PM_{2.5}$ violation. Permanent increase for MSAT emissions within the MCP project vicinity compared to the No Build conditions is negligible (no increase higher than 1.1 pounds per day). Peak daily construction emissions: • 119 tons/day of CO • 20.2 tons/day of ROG • 137 tons/day of NO_X • 90.5 tons/day of Total PM_{10}	Permanent concentrations would not exceed the 1-hour or 8-hour CO standards. Would not create a new, or worsen, an existing, PM_{10} or $PM_{2.5}$ violation. Permanent increase for MSAT emissions within the MCP project vicinity compared to the No Build conditions is negligible (no increase higher than 1.1 pounds per day). Peak daily construction emissions: • 119 tons/day of CO • 20.2 tons/day of ROG • 137 tons/day of NO_X • 90.5 tons/day of Total PM_{10}	Permanent concentrations would not exceed the 1-hour or 8-hour CO standards. Would not create a new, or worsen, an existing, PM_{10} or $PM_{2.5}$ violation. Permanent increase for MSAT emissions within the MCP project vicinity compared to the No Build conditions is negligible (no increase higher than 1.1 pounds per day). Peak daily construction emissions: • 119 tons/day of CO • 20.2 tons/day of ROG • 137 tons/day of NO_X • 90.5 tons/day of Total PM_{10}

Table 2.4.B Comparison of the Alternatives

Project Feature or Environmental Effect	No Build Alternative 1A	No Build Alternative 1B	Alternative 4 Modified	Alternative 5 Modified	Alternative 9 Modified	**Preferred Alternative (Alternative 9 Modified with the SJRB DV)**
Sound Barriers (reasonable and feasible)	No impact	No impact	4 sound barriers 19,872 linear ft	6 sound barriers 18,166 linear ft	6 sound barriers 21,095 linear ft	6 sound barriers 21,095 linear ft

Source: LSA Associates, Inc., 2014.

ac = acre(s)
BMP = best management practices
CDFW = California Department of Fish and Wildlife
CO = carbon monoxide
ft = foot/feet
I-215 = Interstate 215
LAPM = Los Angeles pocket mouse
MSAT = Mobile Source Air Toxics
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic gases
SBKR = San Bernardino kangaroo rat
SO_X = oxides of sulfur
SR-79 = State Route 79
USACE = United States Army Corps of Engineers

noted that the City Council adopted a resolution in 2009 encouraging RCTC to initiate work on the MCP at its eastern terminus, beginning in San Jacinto and heading west toward Lakeview. In its March 13, 2013, comment letter on the Recirculated Draft EIR/Supplemental Draft EIS, the City of Perris reiterated its support of Alternative 9 as the locally preferred alternative consistent with resolution number 4428 adopted by the City Council on June 28, 2011.

On December 16, 2008, the City of Riverside City Council declared its support for the MCP project. However, the County of Riverside has not identified a locally preferred alternative.

2.5.2 Public

At scoping meetings held in late 2004 and another public meeting in August 2005, the public did not identify a preference for a particular alternative from the original 32 miles of MCP Alternatives. Individual property owners typically stated preferences for alternatives that were not on or near their properties.

During circulation of the Draft EIR/EIS in 2008, the public also did not identify a preference for a particular alternative. Refer to Chapter 5.0, Comments and Coordination, for additional information regarding comments received during public circulation of the Draft EIR/EIS in 2008.

During the circulation of the Recirculated Draft EIR/Supplemental Draft EIS in early 2013, many members of the general public indicated specific preferences for either no MCP project or one of the MCP project Build Alternatives. Refer to Chapter 5.0, Comments and Coordination, for additional discussion regarding public input received during the circulation of the Recirculated Draft EIR/Supplemental Draft EIS.

2.5.3 Preliminary Least Environmentally Damaging Practicable Alternative

Pursuant to Checkpoint 3 in the 2006 National Environmental Policy Act/Clean Water Act (NEPA/404) Section 404 Memorandum of Understanding (MOU), the FHWA formally consulted with the USFWS, the USACE, and the EPA on the determination of the Preliminary Least Environmentally Damaging Practicable Alternative (LEDPA) for the MCP.

Because there are several alignment alternatives, with potential Design Variations for each, the preliminary LEDPA analysis was conducted into two parts: (1) identification of a preliminary LEDPA alignment; and (2) identification of Design Variations for the

preliminary LEDPA alignment. The MCP alternatives were evaluated using the criteria for use in selecting the preliminary LEDPA that were agreed upon through Checkpoint 2 of the NEPA/404 Integration Process.

These criteria included the following three broad categories with specific criteria for each category: Purpose and Need, Reasonable and Practicable, and Environmental Impacts. Using findings from the MCP technical studies and the Recirculated Draft EIR/ Supplemental Draft EIS, Tables 2.5.A and 2.5.B were developed to present information to allow for comparison of the alternatives based on these criteria.

The Preliminary LEDPA analyses are described briefly in the following sections and are documented in detail in the "Preferred Alternative/Preliminary LEDPA Identification (NEPA/404 Checkpoint 3)" technical memorandum (December 18, 2013), which is provided in Appendix M. The agency consultation supporting the Preliminary LEDPA analyses and determination process is described in Chapter 5, Comments and Coordination, in this Final EIR/EIS.

2.5.3.1 Analysis of the Alignment Alternatives

Table 2.5.A addresses all the selection criteria for each alternative. This matrix describes the "value" or "metric" for each criterion (some are quantitative while others are "yes/no"). The No Build Alternatives are not included in these matrices because they do not meet the project Purpose and Need.

Based on the results of the evaluation of the selection criteria for the Build Alternatives summarized in Table 2.5.A, Alternative 9 Modified was recommended to be designated as the preliminary LEDPA alignment in the Final EIR/EIS.

In general, the environmental impacts of Alternative 4 Modified are consistently greater than the impacts of Alternatives 5 Modified and 9 Modified. Based on the key evaluation criteria for the Build Alternatives in Table 2.5.A, the impacts to natural resources are not substantially different among the Build Alternatives, particularly east of the City of Perris due to the common alignment in that area, and particularly for Alternatives 5 Modified and 9 Modified. Alternative 9 Modified has slightly more total (permanent and temporary) impacts to federal jurisdictional waters than Alternative 5 Modified (0.6 acre), and is ranked slightly higher than Alternative 5 Modified in hydrology impacts (normalized rank score of 8.9 for Alternative 5 Modified and 9.2 for Alternative 9 Modified), but has lower water quality impacts. Alternative 9 Modified has lower impacts to Riversidean upland scrub communities than Alternative 5 Modified (by 2.4 acres), and less impacts to PQP lands.

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Table 2.5.A Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
I. PURPOSE AND NEED				
1. Provide capacity for 2040[a]	Y/N	Yes	Yes	Yes
2. Serve regional movement of people and goods[b]	Y/N	Yes	Yes	Yes
3. Provide roadway geometrics to meet State Highway design standards[c]	Y/N	Yes	Yes	Yes
4. Provide limited access facility[d]	Number of Access Points	10	10	10
5. Accommodate STAA trucks[e]	Y/N	Yes	Yes	Yes
6. Provide a facility that is compatible with a future multimodal transportation system[f]	Y/N	Yes	Yes	Yes
7. Provide an effective and efficient connection between and through San Jacinto and Perris[g]	Y/N	Yes	Yes	Yes
II. REASONABLE AND PRACTICABLE				
1. COST[h]				
1.1 Construction[1]	U.S. Dollars	$1.79 Billion	$1.40 Billion	$ 1.31 Billion
1.2 ROW Acquisition	U.S. Dollars	$0.20 Billion	$0.21 Billion	$0.19 Billion
1.3 Mitigation[2]	U.S. Dollars	$0.11 Billion	$0.11 Billion	$0.11 Billion
1.4 Total (Construction, ROW, Mitigation)	U.S. Dollars	$2.10 Billion	$1.72 Billion	$1.61 Billion
1.5 Engineering/Design	U.S. Dollars	$0.42 Billion	$0.34 Billion	$0.32 Billion
2. TECHNOLOGICAL CONSTRAINTS				
2.1 Safety (Non-Highway)	Y/N	No	No	No
2.2 Engineering Issues	Y/N	No	No	No
3. LOGISTICAL CONSTRAINTS				
3.1 Logistical Constraints	Y/N	No	No	No
4. OTHER NEPA/404 CRITERIA				
4.1 Unacceptable Adverse Social, Economic, or Environmental Impacts(i)	Y/N	No	No	No
4.2 Serious Community Disruption(j)	Y/N	No	No	No
III. ENVIRONMENTAL				
1. WATER RESOURCES/AQUATIC ECOSYSTEM				
1.1 USACE Jurisdictional Waters/Wetlands (Impacts to Waters of the U.S.)(k)	Acreage	• 5.34 acres of permanent impacts (1.01 acre of wetlands; 4.33 acres of non-wetland waters) • 7.72 acres of temporary impacts (4.94 acres of wetlands; 2.78 acres of non-wetland waters)	• 5.15 acres of permanent impacts (0.61 acre of wetlands; 4.54 acres of non-wetland waters) • 6.15 acres of temporary impacts (4.26 acres of wetlands; 1.89 acres of non-wetland waters)	• 5.01 acres of permanent impacts (0.64 acre of wetlands; 4.37 acres of non-wetland waters) • 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)
1.1A California Department of Fish and Wildlife Jurisdictional Area(l)	Acreage	• 8.34 acres of permanent impacts • 4.49 acres of temporary impacts	• 7.31 acres of permanent impacts • 3.95 acres of temporary impacts	• 7.50 total acres of permanent impacts • 4.30 total acres of temporary impacts
1.2 Functions/Values Affected (Hydrology Impacts)(m)	Sum of normalized rank scores for all criteria for alternatives corridor alignments from ERDC Conditions Assessment	12.1	8.9	9.2

Table 2.5.A Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
	(lower number = fewer impacts)			
1.3 Consistent with SAMP Goals(n)	N/A	N/A	N/A	N/A
1.4 Floodplain Impacts(o)	Floodplain Affected: Transverse Encroachment (TE) Longitudinal Encroachment (LE)	• Perris Valley Storm Drain: LE	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE
		• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE
		• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE
1.5 Beneficial Uses Affected(p)	Beneficial Use	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.
1.6 Water Quality Construction Impacts(q)	No. of Stream Crossings; Acres of soil disturbance	• 13 stream crossings	• 11 stream crossings	• 11 stream crossings
		• 1,153 acres of maximum disturbed soil	• 1,145 acres of maximum disturbed soil	• 1,091 acres of maximum disturbed soil
1.7 Water Quality Permanent Impacts(r)	Acres of new pavement; Acres of steep slopes; Increase/Decrease in pollutant loads	• 525 acres of new pavement	• 516.9 acres of new pavement	• 479.5 acres of new pavement
		• 6 acres of steep slopes	• 6 acres of steep slopes	• 6 acres of steep slopes
		• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs
2. THREATENED AND ENDANGERED SPECIES[s]				
2.1 Species/Populations Affected (Wildlife)	Acreage	• 3.7 acres of least Bell's vireo occupied habitat	• 3.7 acres of least Bell's vireo habitat	• 3.7 acres of least Bell's vireo habitat
		• 1.7 acres of occupied SBKR habitat	• 1.7 acres of occupied SBKR habitat	• 1.7 acres of occupied SBKR habitat
		• 1.5 acres of final SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)
2.2 Species/Populations Affected (Plants)	Acreage (temporary and permanent impacts)	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat
		• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements
3. PLANT COMMUNITIES[t]				
3.1 Sensitive Plant Communities Affected	Acreage (temporary and permanent impacts)	• 92.5 acres of Riversidean upland sage scrub	• 89.4 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub
		• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)	• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)	• 27.8 total acres of San Jacinto River alkali communities (20.6 acres permanent, 7.2 acres temporary)
		• 5.4 total acres of riparian habitat (2.7 acres permanent, 2.7 acres temporary)	• 5.3 acres of riparian habitat (2.6 acres permanent, 2.7 acres temporary)	• 5.4 acres of riparian habitat (2.7 acres permanent, 2.7 acres temporary)
4. EFFECTS ON EXISTING HCPS				
4.1 SKR HCP Reserves[u]	Require Acquisition of Reserve Land (Y/N)	No	No	No
5. WESTERN RIVERSIDE COUNTY MSHCP				
5.1 MSHCP Consistency Determination	Consistency Determination Required (Y/N)	Yes	Yes	Yes
5.2 Conservation Goals(v)	Acreage Affected of MSHCP Criteria Area, Public/Quasi-Public Lands, and MSHCP Conservation Area	• 192 acres affected of Criteria Area	• 192 acres affected of Criteria Area	• 192 acres affected of Criteria Area
		• 7.3 acres of temporary effects to PQP lands	• 4.3 acres of temporary effects to PQP lands	• 3.8 acres of temporary effects to PQP lands

Table 2.5.A Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
	(Cores/Linkages) (temporary and permanent impacts)	• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area
5.3 Mitigation Acreage Required	Acreage	N/A	N/A	N/A
5.4 Mitigation Acreage Available	Y/N	N/A	N/A	N/A
6. SECTION4(f) RESOURCES[w]				
6.1 Section 4(f) Resources - direct use[3]	Total Section 4(f) Resources, Acreage, and Cultural Sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA. • Four archaeological sites assumed to be eligible for the National Register.	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA. • Four archaeological sites assumed to be eligible for the National Register.	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site and avoidance of P-33-3653 with an ESA. • Four archaeological sites assumed to be eligible for the National Register.
6.2 Section 4(f) Resources - constructive use	Number of Section 4(f) Resources	None	None	None
7. SECTION 6(f) LANDS				
7.1 Section 6(f) Lands Affected	Acreage	None	None	None
8. CULTURAL RESOURCES[x]				
8.1 Prehistoric archaeological resources	Number of Sites	5 sites	5 sites	5 sites
8.2 Historic archaeological/architectural resources	Number of Sites	0 sites	0 sites	0 sites
8.3 Sacred Sites	Number of Sites	1 site	1 site	1 site
9. LAND USE IMPACTS				
9.1a Access Impacts (Business)[y]	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	2
9.1b Access Impacts (Residential)[y]	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	2	3
9.2a Cities of San Jacinto and Perris[z]	Inconsistencies	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment. • Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment. • Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan because it does not follow the original CETAP alignment. • Amendments to the San Jacinto General Plan required to reflect either SJN or SJS DV alignment at east end of MCP.
9.2b County of Riverside[aa]	Inconsistencies	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.
9.3 Farmland Impacts[bb]	Acreage	Prime Farmland 212.7 acres, Farmland of State Importance 164.7 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 601.0 acres, and Grazing Land 81.45 acres. **(Total: 1,107.3 acres)**	Prime Farmland 250.8 acres, Farmland of State Importance 149.9 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 538.0 acres, and Grazing Land 75.72 acres. **(Total: 1,061.9 acres)**	Prime Farmland 191.0 acres, Farmland of State Importance 149.9 acres, Unique Farmland 47.5 acres, Farmland of Local Importance 578.6 acres, and Grazing Land 74.87 acres. **(Total: 1,041.8 acres)**

Table 2.5.A Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
10. SOCIOECONOMIC/COMMUNITY IMPACTS				
10.1 Business Displacements[(cc)]	Property acquisitions & employees displaced	• 91 non-residential property acquisitions	• 159 non-residential property acquisitions	• 103 non-residential property acquisitions
		• 68 businesses displaced	• 90 businesses displaced	• 37 businesses displaced
		• 350 employees potentially displaced	• 1,129 employees potentially displaced	• 188 employees potentially displaced
10.2 Residential Displacements[(dd)]	Property acquisitions & occupants displaced	• 48 residential property acquisitions	• 36 residential property acquisitions	• 102 residential property acquisitions
		• 426 occupants displaced	• 373 occupants displaced	• 659 occupants displaced
10.3 Travel Pattern Disruptions[(ee)]	Ranking 1-3 (1 Least Impact, 3 Worst Impacts)	1	3	2
10.4 Environmental Justice Concerns[(ff)]	Impacts to minority/low-income populations	• Does not result in disproportionate impacts to environmental justice populations	• Does result in disproportionate impacts to environmental justice populations	• Does not result in disproportionate impacts to environmental justice populations
10.5 Community Service Disruptions (EMS, fire, police)[(gg)]	Property acquisitions Y/N	No	No	No
10.6 Neighborhood/Community Impacts[(hh)]	Y/N	Yes	Yes	Yes
10.7 Schools[(ii)]	Direct Impacts	• Direct impacts to the portable classrooms at Val Verde High School and the Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris).	• Direct impacts to the portable classrooms at Val Verde High School and the Val Verde Unified School District Administrative and Facilities Operation Building (City of Perris).	• No direct impact to schools.
10.8 Support by local jurisdictions, community groups, and public	Support/Opposition	• City of San Jacinto opposes the SJN DV • Riverside County prefers the SJRB DV over the Base Case	• City of San Jacinto opposes the SJN DV • Riverside County prefers the SJRB DV over the Base Case	• City of Perris identified Alternative 9 as its locally preferred alternative • City of San Jacinto opposes the SJN DV • Riverside County prefers the SJRB DV over the Base Case
11. AIR QUALITY IMPACTS[(jj)]				
11.1 Criteria Pollutant Emissions in the MCP Region	Emissions in lbs/day	• 201,720 lbs/day of CO	• 201,720 lbs/day of CO	• 201,914 lbs/day of CO
		• 11,057 lbs/day of ROG	• 11,056 lbs/day of ROG	• 11,066 lbs/day of ROG
		• 52,327 lbs/day of NO_X	• 52,323 lbs/day of NO_X	• 52,365 lbs/day of NO_X
		• 1,200 ton/day of SO_X	• 1,200 ton/day of SO_X	• 1,201 ton/day of SO_X
		• 11,623 lbs/day of PM_{10}	• 11,623 lbs/day of PM_{10}	• 11,633 lbs/day of PM_{10}
		• 7,301 lbs/day of $PM_{2.5}$	• 7,300 lbs/day of $PM_{2.5}$	• 7,306 lbs/day of $PM_{2.5}$
		• 126,057,775 lbs/day of CO_2	• 126,043,848 lbs/day of CO_2	• 126,150,645 lbs/day of CO_2
11.2 Exceeds NAAQS Emission Standards	Y/N	No	No	No
12. NOISE IMPACTS				
12.1 Sensitive Receptors Affected[(kk)]	Number of Modeled Receptors Affected	• Of the 337 modeled receptors, 73 receptors approach or exceed the 67 dBA L_{eq} NAC and 133 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 358 modeled receptors, 69 receptors approach or exceed the 67 dBA L_{eq} NAC and 151 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L_{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.

Table 2.5.A Detail Matrix of the Evaluation of the Mid County Parkway Build Alternatives

Criteria	Values (Metrics)	Alternative 4 Modified Base Case Design	Alternative 5 Modified Base Case Design	Alternative 9 Modified Base Case Design
12.2 Amount of Mitigation Feasible[II]	Number and Length of Sound Barriers	• 4 sound barriers	• 6 sound barriers	• 6 sound barriers
		• 19,872 linear feet	• 18,160 linear feet	• 21,095 linear feet

Source: Preferred Alternative/Preliminary LEDPA Identification (NEPA/404 Checkpoint 4) Technical Memorandum (December 18, 2014), which is provided in Appendix M of this EIR/EIS.

[1] Construction cost does not include mitigation costs for each alternative.
[2] Environmental Mitigation Costs include the costs to purchase acreage for mitigation, wildlife undercrossing, and the San Jacinto River Bridge in the Lakeview area.
[3] After the NEPA/404 Checkpoint 3 process, the alignment of the Build Alternatives was refined to avoid the use of any land in the San Jacinto Wildlife Area.

(a) Figures 7-16 (Alternative 4 Modified), 7-30 (Alternative 5 Modified), and 7-44 (Alternative 9 Modified) in the *Mid County Parkway Traffic Technical Report* (February 3, 2012)
(b) Subsection titled "Population/Traffic Forecast" (page 1-17) in the Recirculated Draft EIR/Supplemental Draft EIS
(c) Subsections titled "Capacity Needs" (page 1-18), "Safety" (page 1-22), and "Operational" (page 1-26), in the Recirculated Draft EIR/Supplemental Draft EIS
(d) Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS
(e) Section 2.3.2.1, Design (page 2-18), in the Recirculated Draft EIR/Supplemental Draft EIS
(f) Section 2.3.2.2, Typical Sections (page 2-19), in the Recirculated Draft EIR/Supplemental Draft EIS
(g) Section 2.3, Project Alternatives (page 2-7), in the Recirculated Draft EIR/Supplemental Draft EIS
(h) All costs are based on the 2012 cost estimate except for Alternative 9 Modified SJRB DV (the preferred alternative), which includes both the 2012 cost (for alternative cost comparison purposes) and the updated 2014 cost estimate.
(i) Refer to the environmental analyses in Chapter 3.0, Affected Environment, Environmental Consequences, and Avoidance, Minimization, and Mitigation Measures, in the Recirculated Draft EIR/Supplemental Draft EIS
(j) Refer to Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
(k) Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013). Updated calculations to be included in Final EIR/EIS.
(l) Updated calculations of impacts based on updated draft jurisdictional delineation (LSA 2013). Updated calculations to be included in Final EIR/EIS.
(m) Riparian Ecosystem Integrity Assessment (provided as Appendix G in the *Supplement to the Natural Environment Study for the Mid County Parkway Project*, December 2011)
(n) SAMP is no longer active per USACE/Los Angeles District website (http://www.spl.usace.army.mil/Missions/Regulatory/ProjectsPrograms.aspx, accessed December 4, 2013)
(o) Subsection titled "Floodplain Encroachment" (page 3.9-10), in the Recirculated Draft EIR/Supplemental Draft EIS
(p) Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
(q) Section 3.10.3.2, Temporary Impacts (page 3.10-35), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
(r) Page 3.10- 28 in Section 3.10.3.1, Permanent Impacts (page 3.10-17), in Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS
(s) Table 3.21.B, Impacts to Threatened and Endangered Species (page 3.21-7) in Section 3.21, Threatened and Endangered Species, in the Recirculated Draft EIR/Supplemental Draft EIS
(t) Updated calculations based on revised design and will be included in Final EIR/EIS
(u) Subsection titled "Habitat Conservation Plan for the Stephens' Kangaroo Rat" (page 3.17-47) in Section 3.17, Natural Communities, in the Recirculated Draft EIR/Supplemental Draft EIS
(v) Draft MSHCP Consistency Analysis and DBESP (September 2014)
(w) Sections 4.0, Multiuse Prehistoric Site (page 4-1); 5.0, Sites P-33-19862, P-33-19863, P-33-19864, and P-33-19866 (page 5-1), and 7.0, Use of Nationwide Programmatic Section 4(f) Evaluation for the San Jacinto Wildlife Area (page 7-1) in Appendix B, Revised Draft Section 4(f) Evaluation, in the Recirculated Draft EIR/Supplemental EIS
(x) Section 3.8.3.1, Permanent Impacts (page 3.8-14), in Section 3.8, Cultural Resources, in the Recirculated Draft EIR/Supplemental Draft EIS
(y) Access assessment based on Appendix I, Supplemental Chapter 2 Attachments, Attachment G, Local Circulation Modifications, in the Recirculated Draft EIR/Supplemental Draft EIS
(z) Subsection titled "City and County General Plans" (page 3.1-32), in Section 3.1, Land Use, in the Recirculated Draft EIR/Supplemental Draft EIS
(aa) Table 3.3.C, Impacts to Farmland per Alternative (acres) (page 3.3-9), in Section 3.3, Farmlands/Timberlands, in the Recirculated Draft EIR/Supplemental Draft EIS
(bb) Tables 3.4.F, Full Parcel Acquisitions and Displacements by Alternative (page 3.4-34), and 3.4.G, Number of Displaced Employees by Alternative and Jurisdiction (page 3.4-36), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
(cc) Subsections titled "Temporary Impacts" (page 3.4-29), and "Permanent Impacts" (page 3.4-50), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
(dd) Section 3.4.3, Environmental Justice (page 3.4-41), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
(ee) Section 3.5.2, Environmental Consequences (page 3.5-3), in Section 3.5, Utilities/Emergency Services, in the Recirculated Draft EIR/Supplemental Draft EIS
(ff) Travel pattern disruptions based on changes to access described in Appendix I, Supplemental Chapter 2 Attachments, Attachment G, Local Circulation Modifications, in the Recirculated Draft EIR/Supplemental Draft EIS
(gg) Subsections titled "Perris Area (Mead Valley)/City of Perris" (pages 3.4-24, 3.4-27, and 3.4-29, respectively, for Alternatives 4, 5, and 9 Modified), in Section 3.4, Community Impacts, in the Recirculated Draft EIR/Supplemental Draft EIS
(hh) Tables 3.14.I, Daily PM2.5 Emissions (lbs/day) (page 3.14-22); 3.14.J, Daily PM10 Emissions (lbs/day) (page 3.14-22); 3.14.S, MSAT Emissions for the MCP Study Area (lbs/day) (page 3.14-34); 3.14.T, 2008 Regional Vehicle Emissions (lbs/day) (page 3.14-36); 3.14.U, 2020 Regional Vehicle Emissions (lbs/day) (page 3.14-37); 3.14.V, 2040 Regional Vehicle Emissions (lbs/day); and 3.14.W Maximum Project Construction Emissions (lbs/day) (page 3.14-42)
(ii) Section 3.15.3.1, Permanent Impacts (page 3.15-67), and Tables 3.15.Q through 3.15.X (starting on page 3.15-37), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS
(jj) Subsection titled "Noise Abatement Consideration" (page 3.15-70), and Table 3.15.AB, Summary of Preliminary Recommended Noise Barriers, (page 3.15-96), in Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS

BMP = best management practice
CETAP = Community and Environmental Transportation Acceptability Process
CO = carbon monoxide
CO_2 = carbon dioxide
dB = decibels
dBA = A-weighted decibels
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
EMS = Emergency Medical Services
ERDC = Engineer and Research Development Center
ESA = Environmentally Sensitive Area
HCP = Habitat Conservation Plan
lbs/day = pounds per day
LEDPA = least environmentally damaging practicable alternative
L_{eq} = equivalent continuous sound level
MCP = Mid County Parkway
MSHCP = Multiple Species Habitat Conservation Plan
N/A = Not Applicable
NAAQS = National Ambient Air Quality Standards
NAC = Noise Abatement Criteria
National Register = National Register of Historic Places
NEPA = National Environmental Policy Act
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PQP = Public/Quasi-Public
RDEIR = Recirculated Draft Environmental Impact Report
RDEIS = Recirculated Draft Environmental Impact Statement
ROG = reactive organic gases
ROW = right of way
SAMP = Special Area Management Plan
SBKR = San Bernardino kangaroo rat
SJN = San Jacinto North
SJN DV = San Jacinto North Design Variation
SJRB DV = San Jacinto River Bridge Design Variation
SJS = San Jacinto South
SKR = Stephens' kangaroo rat
SO_X = oxides of sulfur
SR-79 = State Route 79
STAA = Surface Transportation Assistance Act
USACE = United States Army Corps of Engineers
Y/N = yes/no

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Table 2.5.B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
I.					
1. Provide capacity for 2040	Y/N	Yes	Yes	Yes	Yes
2. Serve regional movement of people and goods	Y/N	Yes	Yes	Yes	Yes
3. Provide roadway geometrics to meet State Highway design standards	Y/N	Yes	Yes	Yes	Yes
4. Provide limited access facility	Number of Access Points	10	10	10	10
5. Accommodate STAA trucks	Y/N	Yes	Yes	Yes	Yes
6. Provide a facility that is compatible with a future multimodal transportation system	Y/N	Yes	Yes	Yes	Yes
7. Provide an effective and efficient connection between and through San Jacinto and Perris	Y/N	Yes	Yes	Yes	Yes
II. REASONABLE AND PRACTICABLE					
1. COST[1]					
1.1 Construction[2]	U.S. Dollars	$ 1.31 Billion	$1.27 Billion	$1.31/$1.01[6] Billion	$1.65 Billion
1.2 ROW Acquisition	U.S. Dollars	$0.19 Billion	$0.15 Billion	$0.19/$0.24[6] Billion	$0.19 Billion
1.3 Mitigation[3]	U.S. Dollars	$0.11 Billion	$0.11 Billion	$0.08/$0.10[6] Billion	$0.11 Billion
1.4 Total (Construction, ROW, Mitigation)	U.S. Dollars	$1.61 Billion	$1.53 Billion	$1.58/$1.35[6] Billion	1.95 Billion
1.5 Engineering/Design	U.S. Dollars	$0.32 Billion	$0.31 Billion	$0.32/$0.23[6] Billion	$0.39 Billion
2. TECHNOLOGICAL CONSTRAINTS					
2.1 Safety (Non-Highway)	Y/N	No	No	No	No
2.2 Engineering Issues	Y/N	No	No; but the interchange spacing does not meet Caltrans' standard	No	No
3. LOGISTICAL CONSTRAINTS					
3.1 Logistical Constraints	Y/N	No	No	No	No
4. OTHER NEPA/404 CRITERIA					
4.1 Unacceptable Adverse Social, Economic, or Environmental Impacts	Y/N	No	No	No	No
4.2 Serious Community Disruption	Y/N	No	No	No	No
III. ENVIRONMENTAL					
1. WATER RESOURCES/AQUATIC ECOSYSTEM					
1.1 USACE Jurisdictional Waters/Wetlands (Impacts to Waters of the U.S.)	Acreage	• 5.01 acres of permanent impacts (0.64 acres of wetlands; 4.37 acres of non-wetland waters)	• 4.25 acres of permanent impacts (0.38 acre of wetlands; 3.87 acres of non-wetland waters)	• 5.01 acres of permanent impacts (0.64 acres of wetlands; 4.37 acres of non-wetland waters)	Not analyzed[4]
		• 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)	• 5.06 acres of temporary impacts (3.08 acres of wetlands; 1.98 acres of non-wetland waters)	• 6.91 acres of temporary impacts (4.79 acres of wetlands; 2.12 acres of non-wetland waters)	Not analyzed[4]

Table 2.5.B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	**SJN DV**	**SJRB DV**	**Section 404 No Action Alternative**
1.1A California Department of Fish and Wildlife Jurisdictional Area	Acreage	• 7.50 total acres of permanent impacts	• 7.87 total acres of permanent impacts	• 7.50 total acres of permanent impacts	Not analyzed[4]
		• 4.30 total acres of temporary impacts	• 2.24 total acres of temporary impacts	• 4.30 total acres of temporary impacts	Not analyzed[4]
1.2 Functions/Values Affected (Hydrology Impacts)	Sum of normalized rank scores for all criteria for alternatives corridor alignments from ERDC Riparian Ecosystem Integrity Assessment (lower number = fewer impacts)	9.2	9	10.8	Not analyzed[4]
1.3 Consistent with SAMP Goals	Not applicable	Not applicable	Not applicable	Not applicable	Not analyzed[4]
1.4 Floodplain Impacts	Floodplain Affected:	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE	• Perris Valley Storm Drain: TE	Not analyzed[4]
	Transverse Encroachment (TE)	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	• San Jacinto River at Lakeview: TE	Not analyzed[4]
	Longitudinal Encroachment (LE)	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	• San Jacinto River at SR-79: LE	Not analyzed[4]
1.5 Beneficial Uses Affected	Beneficial Use	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	With implementation of BMPs, there will be no adverse effects to Beneficial Uses.	Not analyzed[4]
1.6 Water Quality Construction Impacts	No. of Stream Crossings; Acres of soil disturbance	• 11 stream crossings	• 10 stream crossings	• 11 stream crossings	Not analyzed[4]
		• 1,091 acres of maximum disturbed soil	• 1,078 acres of maximum disturbed soil	• 1,091 acres of maximum disturbed soil	
1.7 Water Quality Permanent Impacts	Acres of new pavement; Acres of steep slopes; Increase/Decrease in pollutant loads	• 479.5 acres of new pavement	• 460.3 acres of new pavement	• 479.5 acres of new pavement	Not analyzed[4]
		• 6 acres of steep slopes	• 6 acres of steep slopes	• 6 acres of steep slopes	Not analyzed[4]
		• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	• Decrease annual loading with implemented BMPs	
2. THREATENED AND ENDANGERED SPECIES					
2.1 Species/Populations Affected (Wildlife)	Acreage	• 3.7 acres of least Bell's vireo habitat	• 3.6 acres of least Bell's vireo habitat	• 3.7 acres of least Bell's vireo habitat	Not analyzed[4]
		• 1.7 acres of occupied SBKR habitat	• 1.8 acres of occupied SBKR habitat	• 1.7 occupied SBKR habitat	Not analyzed[4]
		• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	• 1.5 acres of reinstated SBKR critical habitat (2002)	Not analyzed[4]
2.2 Species/Populations Affected (Plants)	Acreage (temporary and permanent impacts)	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	• 0.36 acre of occupied San Jacinto valley crownscale habitat	Not analyzed[4]
		• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	• 1.09 acres of occupied spreading navarretia habitat and final critical habitat (2008) with primary constituent elements	Not analyzed[4]
3. PLANT COMMUNITIES					
3.1 Sensitive Plant Communities Affected	Acreage (temporary and permanent impacts)	• 87.0 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub	• 87.0 acres of Riversidean upland sage scrub	Not analyzed[4]
		• 27.8 acres of San Jacinto River alkali communities (20.9 acres permanent [2.2 acres due to bridge fill, 8.5 acres due to bridge shading, and 10.2 acres of other permanent impacts], 7.2 acres temporary)	• 27.8 acres of San Jacinto River alkali communities (20.9 acres permanent [2.2 acres due to bridge fill, 8.5 acres due to bridge shading, and 10.2 acres of other permanent impacts], 7.2 acres temporary)	• 29.9 acres of San Jacinto River alkali communities (26.6 acres permanent [10.6 acres due to bridge fill, 4.8 acres due to bridge shading, and 11.2 acres of other permanent impacts], 3.5 acres temporary)	Not analyzed[4]
		• 5.1 total acres of riparian habitat (2.4 acres permanent, 2.7 acres temporary)	• 4.2 total acres of riparian habitat (3.4 acres permanent, 0.8 acre temporary)	• 5.1 total acres of riparian habitat (2.4 acres permanent, 2.7 acres temporary)	Not analyzed[4]

Table 2.5.B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
4. EFFECTS ON SKR HCP					
4.1 SKR HCP Reserves	Require Acquisition of Reserve Land (Y/N)	No	No	No	Not analyzed[4]
5. EFFECTS ON WESTERN RIVERSIDE COUNTY MSHCP					
5.1 MSHCP Consistency Determination	Consistency Determination Required (Y/N)	Yes	Yes	Yes	Not analyzed[4]
		• 191.9 acres affected of Criteria Area	• 192.8 acres affected of Criteria Area	• 194.0 acres affected of Criteria Area	Not analyzed[4]
5.2 Conservation Goals	Acreage Affected of MSHCP Criteria Area, Public/Quasi-Public Lands,[5] and MSHCP Conservation Area (Cores/Linkages) (temporary and permanent impacts)	• 1.46 acres of temporary impacts to PQP lands	• 1.46 acres of temporary impacts to PQP lands	• 1.46 acres of temporary impacts to PQP lands	Not analyzed[4]
		• 62–68 acres affected of Conservation Area	• 62–68 acres affected of Conservation Area	• 64–70 acres affected of Conservation Area	Not analyzed[4]
5.4 Mitigation Acreage Required	Acreage	Not applicable	Not applicable	11 acres of riparian habitat and 35 acres of alkaline riverine habitat	Not analyzed[4]
5.5 Mitigation Acreage Available	Y/N	Not applicable	Not applicable	Yes	Not analyzed[4]
6. SECTION 4(f) RESOURCES					
6.1 Section 4(f) Resources - Direct Use[4]	Total Section 4(f) Resources, Acreage, and Cultural Sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	• 5.18 acres of P-33-16598 (CA RIV 8712) Multiuse Prehistoric Site Cultural Site 4 bedrock milling sites	
		• Four archaeological sites assumed to be eligible for the National Register.	• Four archaeological sites assumed to be eligible for the National Register.	• Four archaeological sites assumed to be eligible for the National Register.	Not analyzed[4]
6.2 Section 4(f) Resources - constructive use	Number of Section 4(f) Resources	None	None	None	Not analyzed[4]
7. SECTION 6(f) LANDS					
7.1 Section 6(f) Lands Affected	Acreage	None	None	None	Not analyzed[4]
8. CULTURAL RESOURCES (includes sites not eligible for National Register)					
8.1 Prehistoric Archaeological Resources	Number of Sites	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Adverse effects to five sites (P-33-16598, P-33-9862, P-33-19863, P-33-19864, and P-33-19866) and avoidance of P-33-3653 with an ESA.	Not analyzed[4]
8.2 Historic Archaeological/ Architectural Resources	Number of Sites	0 sites	0 sites	0 sites	Not analyzed[4]
8.3 Sacred Sites	Number of Sites	1 site	1 site	1 site	Not analyzed[4]
9. LAND USE IMPACTS					
9.1a Access Impacts (Business)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	1	Not analyzed[4]
9.1b Access Impacts (Residential)	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	1	3	1	Not analyzed[4]
9.2a Cities of San Jacinto and Perris	Inconsistencies	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	• Inconsistent with designated roadways and land uses for the City of Perris General Plan focused along Placentia Avenue.	Not analyzed[4]
		• Amendments to San Jacinto General Plan required to reflect either SJN DV or SJS base	• Amendments to San Jacinto General Plan required to reflect either SJN DV or SJS base	• Amendments to San Jacinto General Plan required to reflect either SJN DV or SJS base	Not analyzed[4]

Table 2.5.B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
		case alignment at east end of MCP.	case alignment at east end of MCP.	case alignment at east end of MCP.	
9.2b County of Riverside	Inconsistencies	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	• Inconsistent with Land Use Policies LU 16.2 and 16.4, which protect agricultural lands.	Not analyzed[4]
9.3 Farmland Impacts	Acreage	Prime Farmland 190.95 acres, Farmland of State Importance 149.91 acres, Unique Farmland 47.49 acres, Farmland of Local Importance 578.57 acres, and Grazing Land 74.87 acres. **(Total: 1,041.79 acres)**	Prime Farmland 191.19 acres, Farmland of State Importance 1498.27 acres, Unique Farmland 49.27 acres, Farmland of Local Importance 518.88 acres, and Grazing Land 74.87 acres. **(Total: 1,032.55 acres)**	Prime Farmland 190.95 acres, Farmland of State Importance 149.91 acres, Unique Farmland 47.49 acres, Farmland of Local Importance 580.69 acres, and Grazing Land 74.87 acres. **(Total: 1,043.91 acres)**	Not analyzed[4]
10. SOCIOECONOMIC/COMMUNITY IMPACTS					
10.1 Business Displacements	Property acquisitions & employees displaced	• 103 non-residential property acquisitions	• 93 non-residential property acquisitions	• 103 non-residential property acquisitions	Not analyzed[4]
		• 37 businesses displaced	• 35 businesses displaced	• 37 businesses displaced	Not analyzed[4]
		• 188 employees potentially displaced	• 207 employees potentially displaced	• 188 employees potentially displaced	Not analyzed[4]
10.2 Residential Displacements	Property acquisitions & occupants displaced	• 103 residential property acquisitions	• 105 residential property acquisitions	• 103 residential property acquisitions	Not analyzed[4]
		• 659 occupants displaced	• 675 occupants displaced	• 659 occupants displaced	Not analyzed[4]
10.3 Travel Pattern Disruptions	Ranking 1-3 (1 Least Impact, 3 Worst Impact)	2	2	2	Not analyzed[4]
10.4 Environmental Justice Concerns	Impacts to minority/low-income populations	• Does not result in disproportionate impacts to environmental justice populations	• Does not result in disproportionate impacts to environmental justice populations	• Does not result in disproportionate impacts to environmental justice populations	Not analyzed[4]
10.5 Community Service Disruptions (EMS, fire, police)	Property acquisitions (Y/N)	No	No	No	Not analyzed[4]
10.6 Neighborhood/ Community Impacts	Y/N	Yes	Yes	Yes	Not analyzed[4]
10.7 Schools	Direct Impacts	• No direct impact to schools.	• No direct impact to schools.	• No direct impact to schools.	Not analyzed[4]
10.8 Support by local jurisdictions, community groups, and public	Support/Opposition	• City of Perris identified Alternative 9 Modified as its preferred alternative	• City of San Jacinto opposes the SJN DV	• Riverside County prefers the SJRB DV over the Base Case	Not analyzed[4]
11. AIR QUALITY IMPACTS					
11.1 Criteria Pollutant Emissions in the MCP Region	Emissions in lbs/day	• 100.96 tons/day of CO	• 100.96 tons/day of CO	• 100.96 tons/day of CO	Not analyzed[4]
		• 5.53 tons/day of ROG	• 5.53 tons/day of ROG	• 5.53 tons/day of ROG	Not analyzed[4]
		• 26.18 tons/day of NO_X	• 26.18 tons/day of NO_X	• 26.18 tons/day of NO_X	Not analyzed[4]
		• 0.60 ton/day of SO_X	• 0.60 ton/day of SO_X	• 0.60 ton/day of SO_X	Not analyzed[4]
		• 5.82 tons/day of PM_{10}	• 5.82 tons/day of PM_{10}	• 5.82 tons/day of PM_{10}	Not analyzed[4]
11.2 Exceeds NAAQS Emission Standards	Y/N	No	No	No	Not analyzed[4]
12. NOISE IMPACTS					
12.1 Sensitive Receptors Affected	Number of Modeled Receptors Affected	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L_{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L_{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	• Of the 355 modeled receptors, 66 receptors approach or exceed the 67 dBA L_{eq} NAC and 150 receptors would experience a substantial increase in noise of 12 dB or more.	Not analyzed[4]

Table 2.5.B: Detail Matrix of the Evaluation of Alternative 9 Modified Design Variations and Section 404 No Action Alternative

Criteria	Values (Metrics)	Alternative 9 Modified			
		Base Case Design	SJN DV	SJRB DV	Section 404 No Action Alternative
12.2 Amount of Mitigation Feasible	Number and Length of Sound Barriers	• 6 Sound Barriers	• 6 Sound Barriers	• 6 Sound Barriers	Not analyzed[4]
		• 21,095 linear feet	• 21,095 linear feet	• 21,095 linear feet	Not analyzed[4]

Note: The references and sources for this table are the same as those provided in Table 2.5.A.

[1] All costs are based on the 2012 cost estimate except for Alternative 9 Modified SJRB DV (the preferred alternative), which includes both the 2012 cost (for alternative cost comparison purposes) and the updated 2014 cost estimate.
[2] Construction cost does not include mitigation costs for each alternative.
[3] Environmental Mitigation Costs include cost to purchase acreage for mitigation, wildlife undercrossing, and the San Jacinto River Bridge in the Lakeview area.
[4] The Section 404 No Action Alternative was deemed to be not practicable because of its high cost; therefore, it was not analyzed under the Environmental Criteria.
[5] After the NEPA/404 Checkpoint 3 process, the alignment of the Build Alternatives was refined to avoid the use of any land in the San Jacinto Wildlife Area.
[6] Cost based on the updated 2014 cost estimate that was performed only for Alternative 9 Modified SJRB DV (the preferred alternative). All other costs are based on the 2012 cost estimate.

BMP = best management practice
CETAP = Community and Environmental Transportation Acceptability Process
CO = carbon monoxide
CO_2 = carbon dioxide
dB = decibels
dBA = A-weighted decibels
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
EMS = Emergency Medical Services
ERDC = Engineer and Research Development Center
ESA = Environmentally Sensitive Area
HCP = Habitat Conservation Plan
lbs/day = pounds per day
LEDPA = least environmentally damaging practicable alternative
L_{eq} = equivalent continuous sound level
MCP = Mid County Parkway
MSHCP = Multiple Species Habitat Conservation Plan
NAAQS = National Ambient Air Quality Standards
NAC = Noise Abatement Criteria
National Register = National Register of Historic Places
NEPA = National Environmental Policy Act
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PQP = Public/Quasi-Public
RDEIR = Recirculated Draft Environmental Impact Report
RDEIS = Recirculated Draft Environmental Impact Statement
ROG = reactive organic gases
ROW = right of way
SAMP = Special Area Management Plan
SBKR = San Bernardino kangaroo rat
SJN = San Jacinto North
SJN DV = San Jacinto North Design Variation
SJRB DV = San Jacinto River Bridge Design Variation
SJS = San Jacinto South
SKR = Stephens' kangaroo rat
SO_X = oxides of sulfur
SR-79 = State Route 79
STAA = Surface Transportation Assistance Act
USACE = United States Army Corps of Engineers
Y/N = yes/no

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With respect to land use and socioeconomic impacts, Alternative 9 Modified has substantially fewer business and employee displacements. Although Alternative 9 Modified has the highest residential displacements, it would not result in a disproportionate impact to minority/low income populations, whereas Alternative 5 Modified would result in such impacts because of its impacts to employment-generating land uses. Alternative 9 Modified has the least impacts to designated farmland overall and Prime Farmland, and is the only alternative with no impacts to schools. In City Council Resolution 4428 adopted on June 28, 2011, the City of Perris selected Alternative 9 Modified as its locally preferred alternative. A copy of Resolution 4428 is provided in Attachment J-5, in Attachment J, Supplemental Chapter 5 Attachments. In addition, the City of Perris expressed interest in selecting an alternative that is least impacting to businesses and employment in its community.

Finally, Alternative 9 Modified is the most cost-effective Build Alternative, costing $110 million (over 6.5 percent) less than Alternative 5 Modified and $490 million (23 percent) less than Alternative 4 Modified.

2.5.3.2 Analysis of the Design Variations and the Section 404 No Federal Action Alternative

Design Variations

There are two Design Variations for Alternative 9 Modified, the SJRB DV and the SJN DV, which were considered to complete the identification of the preliminary LEDPA. For most of the selection criteria, there are few, if any, differences between the Alternative 9 Modified Base Case and the Design Variations. As with the analysis of Alternatives 4 Modified, 5 Modified, and 9 Modified described earlier, the following discussion highlights the differences that do exist; information for each criterion is provided in Table 2.5.B.

Section 404 No Federal Action Alternative

The Section 404 No Federal Action Alternative would provide essentially the same highway facility and capacity as Alternative 9 Modified, with the exception that culvert crossings would be replaced with bridges and other project structure features would be modified to avoid all dredging and filling in waters of the United States. As a result, the Section 404 No Federal Action Alternative would meet the project purpose.

When compared to Alternative 9 Modified, the Section 404 No Federal Action Alternative could potentially result in greater impacts related to the following

environmental parameters, as a result of modifications to 9 bridge structures and the placement of 35 additional bridge structures:

- Potential for increased risks associated with seismic effects on structures as a result of the substantial increase in bridge structures included in this alternative.
- Potential increase in short-term related air quality and noise effects as a result of the construction of substantially more structures than in Alternative 9 Modified.
- Potential for the Section 404 No Federal Action Alternative to require substantially more concrete, steel, and other materials used to construct bridges. The use of these resources would increase greenhouse gas emissions attributable to the project.

When compared to Alternative 9 Modified, the Section 404 No Federal Action Alternative could potentially result in beneficial effects or reduced adverse effects related to the following parameters, as a result of modifications to 9 bridge structures and the placement of 35 additional bridge structures to avoid waters of the United States in and near water courses and floodplains:

- Avoidance of impacts to waters of the United States and similar reductions in impacts to other waters;
- Reduced changes in local hydrology and floodplains;
- Potential for slightly reduced effects on natural communities and associated plants and animals, including threatened and endangered species; and
- Slightly reduced impacts to wildlife movement, especially in open space or other undeveloped areas, due to greater openness ratio.

The Section 404 No Federal Action Alternative would not be expected to result in impacts substantially different than the impacts of Alternative 9 Modified related to growth, utilities and emergency services, traffic and transportation, cultural resources, paleontology, hazardous materials and wastes, water quality and storm water runoff, long-term air quality and noise, and invasive species.

The Section 404 No Federal Action Alternative would cost approximately $340 million (21 percent) more than the Alternative 9 Modified Base Case due to the design and construction of 44 bridges for all waters of the United States rather than culverts or fill. A detailed cost estimate for the Section 404 No Federal Action Alternative is provided as an attachment in the “Preferred Alternative/Preliminary LEDPA Identification (NEPA/404 Checkpoint 3)” technical memorandum (December 18, 2013). Because of this substantially greater cost, the Section 404 No Federal Action Alternative was determined

to not be practicable. Therefore, the Section 404 No Federal Action Alternative was not evaluated any further in the Preliminary LEDPA analysis.

Conclusion of the Analysis of the Design Variations

This section summarizes the analysis of the SJRB DV and the SJN DV compared to the Base Case Alternative 9 Modified alignment detailed in Table 2.5.B.

SJRB DV. Because the SJRB DV requires less bridge structure to construct than the Base Case design, this Design Variation results in a cost savings of $34 million in limited public transportation funds.[1] However, the SJRB DV results in additional impacts for the following environmental criteria:

- **1.3 (Aquatic Ecosystem Functions and Values):** The SJRB DV has a higher sum (i.e., a worse ranking) of normalized rank scores with a score of 10.8, compared to the Base Case score of 9.2.
- **1.6 (Water Quality Construction Impacts):** The SJRB DV would have 3.5 acres (0.3 percent) more of soil disturbance compared to the Base Case.
- **3.1 (Sensitive Plant Communities Affected):** The SJRB DV would result in permanent impacts to 5.8 acres (28 percent) more of San Jacinto River alkali plant communities than the Base Case or the SJN DV. For the Base Case bridge, the 20.9-acre area of permanent impacts includes 2.2 acres due to fill, 8.5 acres due to shading, and 10.2 acres along the Ramona Expressway within existing fill; while for the SJRB DV, the 26.6-acre area of permanent impacts includes 10.6 acres due to fill, 4.8 acres due to shading, and 11.2 acres along the Ramona Expressway within existing fill. With regard to temporary construction impacts, the Base Case bridge results in 7.2 acres of impacts to San Jacinto River alkali plant communities compared to 3.5 acres of temporary construction impacts under the SJRB DV. As part of the Western Riverside County MSHCP consistency determination process, the RCTC has committed to mitigating permanent and temporary impacts to San Jacinto River alkali plant communities by acquiring (as well as restoring and/or enhancing) 76.6 acres of similar habitat within the vernal pool complex in Noncontiguous Habitat Block 7 of the Western Riverside County MSHCP Criteria Area, because that area has similar

[1] The cost savings of the SJRB DV were originally estimated to be $30 million in the December 18, 2013 Preliminary LEDPA technical memorandum provided in Appendix M. Based on the most current project cost estimate prepared in 2014, this cost savings is now estimated to be $34 million.

soils and known sensitive plant locations, or is within the Lakeview area (see Table 5 in the MSHCP Consistency Report in Appendix T of this Final EIR/EIS).

- **5 (Effects on Western Riverside County MSHCP):** The SJRB DV would affect 1 to 2 acres (up to 1 percent) more of Western Riverside County MSHCP Criteria Area than the Base Case. These slightly greater effects on the Western Riverside County MSHCP Criteria Area are anticipated and allowed by the Western Riverside County MSHCP since the MCP is a Covered Activity, and the SJRB DV is within the bounds of what was contemplated for the MCP project impacts in the Western Riverside County MSHCP. The SJRB DV is consistent with the Western Riverside County MSHCP (refer to the "MCP MSHCP Consistency Determination and Determination of Biological Equivalent or Superior Preservation" provided in Appendix T in this Final EIR/EIS), and, therefore, impacts to the Criteria Area have been contemplated and mitigated for by the Western Riverside County MSHCP.

  While the SJRB DV has greater impacts under the four environmental criteria described above, it does not result in additional impacts to waters of the United States or additional impacts to any other listed or special-status plant or animal species associated with this area. In addition, the County of Riverside has expressed a preference for this Design Variation because of the substantial cost savings, resulting in the ability for the RCTC and the County to fund other needed transportation improvements in western Riverside County. Therefore, when considering the additional impacts to San Jacinto River alkali plant communities and the Western Riverside County MSHCP Criteria Area and Conservation Area noted above (both of which are fully mitigated through RCTC's compliance with the Western Riverside County MSHCP) in comparison to the extra cost of $34 million for the longer bridge (i.e., the Base Case design), the SJRB DV is a cost-effective Design Variation that is acceptable to the affected community and will meet the project purpose with minimal additional environmental impacts.

  SJN DV. Although the SJN DV would cost $80 million less than the Alternative 9 Modified Base Case design, the SJN DV is not acceptable to the City of San Jacinto, the local community directly affected by the SJN DV. Although the City of San Jacinto shows both the SJN DV and the more southerly Base Case MCP alignment on its General Plan Circulation Element map, the City of San Jacinto has been on record supporting the southerly Base Case MCP alignment as its preferred alignment since 2007 because of its greater compatibility with future land uses. Since that time, the City has been actively working with local property owners and developers to preserve land for the southerly Base Case MCP alignment, while looking to focus future land

use entitlements and economic development in the northerly area. As noted in the City's comment letter on the Recirculated Draft EIR/Supplemental Draft EIS dated March 21, 2013, *"The southerly alignment, which the DEIR presents as the City's preferred alternative, has the support of the City Council, local land owners and the development community. Furthermore, it has less impact on the San Jacinto River floodplain and its alignment is almost entirely on vacant land."*

In addition to this local preference by the City of San Jacinto, the SJN DV has the following adverse effects under the following criteria:

- **II.2 (Technological Constraints):** The SJN DV does not meet Caltrans' design criteria for interchange spacing.
- **III.1.1 (Aquatic Resources):** Although the SJN DV impacts less acreage of federal jurisdictional waters, the waters that are impacted have a higher value than the federal jurisdictional waters impacted by the southerly Base Case alignment. In addition, the SJN DV impacts slightly more area of state jurisdictional waters.
- **III.1.4 (Floodplains):** The SJN DV results in slightly greater floodplain impacts than the southerly Base Case alignment.
- **III.3 (Plant Communities):** The SJN DV results in 3.4 acres of permanent impacts to riparian habitat, compared to 2.4 acres under the southerly Base Case alignment.
- **III.9 (Land Use):** The SJN DV results in greater loss of access for existing and future land uses than the southerly Base Case alignment.

Although the $80 million cost savings of the SJN DV is a desirable benefit (just as the $34 million cost savings is for the SJRB DV), the SJN DV is unacceptable to the affected community (the City of San Jacinto), and it also results in additional impacts that would not occur under the southerly Base Case alignment.

2.5.4 Preliminary LEDPA Determination

Based on the above analysis, Alternative 9 Modified, with the SJRB DV and the Base Case southerly alignment through the City of San Jacinto, is recommended as the Preliminary LEDPA.

A coordination meeting with the USFWS, the USACE, and the EPA was held on December 18, 2013. The FHWA formally requested each agency's Agreement/ Disagreement on the Preliminary LEDPA in letters to those three agencies dated December 19, 2013.

In a letter dated February 6, 2014, the USACE concurred with the determination that Alternative 9 Modified with the San Jacinto River Bridge Design Variation is the preliminary LEDPA.

In a letter dated February 10, 2014, the EPA agreed that the Alternative 9 Modified Base Case design, with the Base Case southerly alignment and the San Jacinto River Bridge Design Variation is the preliminary LEDPA.

In a letter dated February 18, 2014, the USFWS agreed with the selection of Alternative 9 Modified with the bridge design variation as the preliminary LEDPA subject to the inclusion of mitigation that provides biologically equivalent or superior preservation of sensitive alkali plant species.

In letters dated April 16, 2014, Caltrans notified the USFWS, the USACE, and the EPA that the transportation agencies (FHWA, RCTC, and Caltrans) made the decision to identify Alternative 9 Modified with the San Jacinto River Bridge Design Variation as the Preliminary LEDPA for the MCP project. This completed compliance with Checkpoint 3 in the NEPA/404 MOU.

The correspondence cited above is provided in Appendix J in this Final EIR/EIS.

2.5.5 Identification of the Preferred Alternative

Based on the LEDPA analyses discussed above, Alternative 9 Modified, with the SJRB DV and the Base Case southerly alignment through the City of San Jacinto, has been identified as the preferred alternative. The Mid County Parkway Project Development Team (PDT), consisting of representatives from RCTC, Caltrans, FHWA, the County of Riverside, the City of Perris, the City of San Jacinto, the City of Corona, and the City of Riverside, concurred with Alternative 9 Modified with the SJRB DV at their meeting of November 20, 2013.

2.5.6 Refinements of the Preliminary Least Environmentally Damaging Practicable Alternative/Preferred Alternative

2.5.6.1 Alignment Refinement in the Vicinity of the San Jacinto Wildlife Area

After the completion of the Checkpoint 3 Preliminary LEDPA step described in Section 2.5.4, RCTC evaluated a refinement to the alignment of Alternative 9 Modified to avoid the permanent incorporation of land from the San Jacinto Wildlife Area. Specifically, as discussed in detail in Appendix B, Revised Draft Section 4(f) Evaluation, in the 2013 Recirculated Draft EIS/Supplemental Draft EIS, the original MCP project alignment

would have resulted in the permanent use of 3.4 acres of land from the San Jacinto Wildlife Area for the MCP project. Because the San Jacinto Wildlife Area is subject to the requirements for protection under Section 4(f), RCTC evaluated shifting an approximately 1.5-mile-long segment of the MCP facility about 200 feet to the south between Bernasconi Road and Antelope Road, away from the San Jacinto Wildlife Area.

Table 2.5.C summarizes the evaluation of the potential effects of that Proposed Realignment of a 1.5-mile-long segment of the MCP alignment and compares those effects to the potential effects of the original MCP project alignment within that same 1.5-mile-long area evaluated in the Recirculated Draft EIR/Supplemental Draft EIS. Table 2.5.C also summarizes the avoidance, minimization, and/or mitigation measures provided in the Recirculated Draft EIR/Supplemental Draft EIS that would apply to the Proposed Realignment.

The purpose and need for the MCP project and the general project description would not change as a result of the Proposed Realignment. The changes to the MCP project under the Proposed Realignment include the realignment of 1.5 miles of the MCP facility, minor changes in the amount of right of way needed for the project, and minor changes in the environmental effects associated with that segment of the MCP project, including the avoidance of direct impacts to 3.4 acres of land from the San Jacinto Wildlife Area and reduced impacts to Los Angeles pocket mouse habitat which is also habitat that potentially supports Stephens' kangaroo rat and coastal California gnatcatcher.

Based on the analyses summarized in Table 2.5.C, the Proposed Realignment would not individually or cumulatively result in new adverse environmental impacts, and no new avoidance, minimization, and/or mitigation measures would be required. As a result, based on the analyses in Table 2.5.C, no further evaluation of impacts of the Proposed Realignment under NEPA is required.

The levels of significance of the project effects under CEQA provided in the 2013 Recirculated Draft EIR/Supplemental Draft EIS and the 2014 "Recirculated Sections of Chapter 4.0 (III, Air Quality; VII, Greenhouse Gases; 4.5, Climate Change; and Table 4.10) of the Recirculated Draft EIR" would remain valid for the Proposed Realignment. As a result, based on the analyses in Table 2.5.A, no further evaluation of impacts of the Proposed Realignment under CEQA is required.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Land Use	
Effects: The following land use effects would occur under the MCP project: Land Use: The MCP project would result in the permanent use of the following existing land uses: Existing Ramona Expressway right of way: 33.0 acres Agricultural uses: 31.6 acres Public facilities: 0.4 acre Vacant land: 39.4 acres **Total: 104.4 acres** General Plan Consistency: The MCP project would result in the permanent use of land designated in adopted local General Plans as follows: Commercial Retail: 0.5 acre Community Commercial: 8.5 acres Conservation: 16.8 acres Medium-Density Residential: 25.5 acres Rural Residential: 20.0 acres **Total General Plan Land Uses: 71.3 acres** Parks and Recreation/Section 4(f): The MCP project would result in the permanent use of 3.4 acres of land from the San Jacinto Wildlife Area, which is a resource protected under the requirements of Section 4(f). Western Riverside County MSHCP: The MCP project would result in the permanent use of land designated in the Western Riverside County MSHCP as follows: Criteria Areas in Ramona Expressway: **2.3 acres** Other Criteria Areas in Impact Area: **1.0 acres** **Total MSHCP Criteria Areas Impacted: 3.3 acres**	Effects: The following land use effects would occur under the Proposed Realignment: Land Use: The Proposed Realignment would result in the permanent use of the following existing land uses: Existing Ramona Expressway right of way: 31.2 acres Agricultural uses: 45.4 acres Public facilities: 1.1 acres Vacant land: 21.8 acres **Total: 99.5 acres** General Plan Consistency: The Proposed Realignment would result in the permanent use of land designated in adopted local General Plans as follows: Commercial Retail: 3.6 acres Community Commercial: 9.0 acres Conservation: 9.5 acres Medium-Density Residential: 38.8 acres Rural Residential: 7.5 acres **Total General Plan Land Uses: 68.4 acres** Parks and Recreation/Section 4(f): The Proposed Realignment would not result in the permanent use of 3.4 acres of land from the San Jacinto Wildlife Area or any other resources protected under the requirements of Section 4(f). Western Riverside County MSHCP: The Proposed Realignment would result in the permanent use of land designated in the Western Riverside County MSHCP as follows: Criteria Areas in Ramona Expressway: **2.3 acres** Other Criteria Areas in Impact Area: **7.7 acres** **Total MSHCP Criteria Areas in Impact Areas 1 and 2: 10 acres**

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Specific Plans: The MCP project would result in impacts to Specific Plans on the west end of the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures LU-1 through LU-6 address the potential short- and long-term impacts of the MCP project related to land use. (from Section 3.1, Land Use, in the Recirculated Draft EIR/Supplemental Draft EIS)	Specific Plans: The Proposed Realignment would not substantially change the characteristics or features of the MCP project and would result in similar impacts to the Specific Plans on the west end of the MCP project. In addition, the Proposed Realignment would result in the acquisition of approximately 30 to 40 parcels in the Community Southwest Development intended for residential uses. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.1: Measures LU-1 through LU-5 address the potential short- and long-term impacts of the Proposed Realignment related to land use. Measure LU-6 would not be required for the Proposed Realignment.
Growth	
Effects: The MCP project could result in permanent growth-related effects by reducing or removing barriers to growth, creating conditions that attract residents or new economic activity, or providing a catalyst for future growth in the area. Applicable Avoidance, Minimization, and/or Mitigation Measures: The permanent growth-related effects of the MCP project would be minimized by compliance with the following requirements and policies: 1. Compliance with the Western Riverside County MSHCP requirements and mitigation fees towards the SKR HCP or Section 7 Consultation 2. Compliance with Section 404 of the Clean Water Act and the Riparian and Riverine policies in Section 6.1.2 of the Western Riverside County MSHCP 3. Compliance as applicable with the following Riverside County General Plan policies related to the protection of cultural resources: OS 19.1 through OS 19.7 4. Compliance as applicable with the following Riverside County General Plan policies related to the farmland protection and conservation policies: LU 16.1, LU 16.2, LU 16.4, LU 16.5, LU 16.7, LU 16.8, LU 16.11 (from Section 3.2, Growth, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would not substantively change the characteristics or features of the MCP project and would provide the same capacity and interchanges as the MCP project. Therefore, the Proposed Realignment would result in the same permanent growth-related effects as the MCP project, based on reducing or removing barriers to growth, creating conditions that attract residents or new economic activity, or providing a catalyst for future growth in the area. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.2: The permanent growth-related effects of the Proposed Realignment would be minimized based on compliance with the same requirements and policies as for the MCP project.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Farmlands/Timberlands	
Effects: The MCP project would result in the permanent use of designated farmland as follows: Farmland of Local Importance: 33.1 acres Prime Farmland: 27.1 acres Farmland of Statewide Importance: 5.6 acres **Total Designated Farmlands: 65.8 acres** Although the MCP project would traverse areas currently used for a variety of agricultural uses, including grazing, dryland and irrigated farming, orchards and dairies, based on the conclusion in the NRCS-CPA-106 form, the MCP project would not have a substantial adverse impact on agricultural lands. There are no timberlands in the MCP study area. The MCP project was aligned to minimize impacts to agricultural lands, and would remain consistent with the Riverside County and the City of San Jacinto General Plans, which each include a major new transportation corridor in the MCP study area, and the City of Perris General Plan, which recognizes that farmlands in the vicinity of I-215 will be converted to other uses. The MCP project would conflict with existing Williamson Act contracts and, therefore, would require notifications to the Director of Conservation and the local governing body responsible for the administration of agricultural preserves pursuant to Section 51291 of the Williamson Act. Agricultural operations could be temporarily impacted where the MCP project bisects existing agricultural parcels of land. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures AG-1, AG-2, AG-3, and AG-4 address the potential permanent and temporary impacts of the MCP project on agricultural resources. There is no mitigation available for the replacement of agricultural land permanently used by the MCP project.	Effects: The Proposed Realignment would result in the permanent use of designated farmland as follows: Farmland of Local Importance: 19.1 acres Prime Farmland: 38.5 acres Farmland of Statewide Importance: 8.1 acres **Total Designated Farmlands: 65.7 acres** The Proposed Realignment would also result in impacts related to General Plan agricultural land use designations, Williamson Act contracts, and temporary impacts on agricultural operations similar to the impacts for the MCP project. Therefore, the Proposed Realignment would result in the same types of permanent and temporary impacts on agricultural resources as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.3: Measures AG-1 through AG-4 would also apply to the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
(from Section 3.3, Farmlands/Timberlands, in the Recirculated Draft EIR/ Supplemental Draft EIS)	
Community Impacts	
Effects: The MCP project would result in impacts related to community character and cohesion, relocation and real property acquisition, and environmental justice as follows. Community Character and Cohesion: The MCP project would result in temporary and permanent community and character and cohesion related-effects by introducing a major transportation facility. Relocation and Real Property Acquisition. The MCP project would result in the permanent acquisition of nonresidential, residential, and public properties, and would result in the temporary use of property during construction for TCEs. Environmental Justice: The MCP project would benefit area residents, including minority and low-income populations, by improving mobility and circulation. However, the MCP project would also impact minority and low-income populations primarily as a result of displacements and/or relocations. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures CC-1 through CC-4, LU-1, LU-2, and TR-1 would address the impacts of the MCP project related to community character and cohesion, relocation and real property acquisition, and environmental justice. (from Section 3.4, Community Impacts, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: The Proposed Realignment would meet the same purpose to improve mobility between and through the cities of Perris and San Jacinto as the MCP project, and would not substantially change the characteristics or features of the MCP project. Although the right-of-way acquisition would be slightly different under the Proposed Realignment than under the MCP project, the same types of uses would be affected, the potential effects would be very similar, and the same avoidance, minimization, and mitigation measures would apply to the Proposed Realignment and the MCP project. As a result, the Proposed Realignment would result in very similar temporary and permanent effects related to community character and cohesion, relocation and real property acquisition, and environmental justice as the MCP project. In the 1.5-mile realignment area, no existing residential or commercial land uses would require relocation, because none exist in this area today. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.4: Measures CC-1 through CC-4, LU-1, LU-2, and TR-1 would also apply to the Proposed Realignment.
Utilities and Emergency Services	
The MCP project would result in the following effects related to utilities and emergency services. Utilities: Effects: Utility services in the vicinity of the MCP project could be temporarily	The Proposed Realignment would result in the following effects related to utilities and emergency services. Utilities: Effects: The Proposed Realignment would not substantially change the

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
interrupted during relocation and removal of utility facilities and lines, as well as other construction activities. Water would be required during construction for dust control. Construction of the MCP project is not expected to result in substantial volumes of excess material requiring off-site disposal. The operation of the MCP project would not result in permanent impacts related to solid waste disposal or generation, water demand, or utilities. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measure U&ES-8 would address the temporary impacts on utility facilities and lines during construction of the MCP project. Emergency Services: Effects: Construction of the MCP project could result in traffic delays that could affect the ability of fire, law enforcement, and emergency service providers to meet response time goals in the MCP study area. The risk of wildfires would increase during construction of the MCP project due to the use of combustion engines in construction equipment, welding equipment, and other sources of combustion engines in construction areas adjacent to undeveloped land. Non-fire-related medical emergencies could temporarily increase with the presence of construction workers and heavy machinery during construction of the MCP project, due to the risk of construction site accidents. The MCP project could improve overall times of emergency responses because the ability to move fire protection and emergency service responders from one area to another would be enhanced by the improved transportation network. The MCP project would not directly impact existing fire stations or police stations. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures U&ES-1 through U&ES-7 and TR-2 would address the construction-related impacts of the MCP project on emergency services. (from Sections 3.5, Utilities/Emergency Services, and 3.6, Traffic and	characteristics or features of the MCP project and would provide similar utilities-related impacts as the MCP project. Therefore, the Proposed Realignment would result in the same temporary utilities-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.5 for Utilities: Measure U&ES-8 would apply during construction of the Proposed Realignment. Emergency Services: Effects: The Proposed Realignment would not change the existing and projected traffic load capacity of the MCP project and would result in the same construction-related impacts to emergency services as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.5 for Emergency Services: Measures U&ES-1 through U&ES-7 and TR-2 would apply during construction of the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Transportation/Pedestrian and Bicycle Facilities, in the Recirculated Draft EIR/ Supplemental Draft EIS)	
Traffic and Transportation/Pedestrian and Bicycle Facilities	
Effects: The MCP project would not result in a substantial permanent impact on traffic load capacity of the existing and projected street system in the MCP study area, and would not require mitigation. The MCP project would result in temporary traffic-related impacts during project construction. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measure TR-1 would address the construction-related traffic impacts of the MCP project. (from Section 3.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would not change the existing and projected traffic load capacity of the MCP project and would provide the same traffic load capacity as the MCP project. Therefore, the Proposed Realignment would result in the same permanent and temporary traffic-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.6: Measure TR-1 would apply during construction of the Proposed Realignment.
Visual/Aesthetics	
Effects: The MCP project would result in permanent visual and aesthetic-related effects to scenic vistas and scenic resources, degradation to the existing visual character and quality in the project area, and the creation of new sources of light and glare. The MCP project would result in temporary visual and aesthetic-related effects to sensitive viewers during the construction period by introducing views of the demolition of existing structures, clearing of existing vegetation, grading of cut-and-fill slopes, construction of the MCP roadway and structures, construction vehicles, and construction staging areas. In addition, construction activities may be required at nighttime, early evening, or early morning to minimize impacts to traffic on existing facilities, such as I-215, and lighting would be required to facilitate a safe work environment in such conditions. Applicable Avoidance, Minimization, and/or Mitigation Measures: The permanent and temporary visual and aesthetic related-effects of the MCP project would be mitigated by Measures VIS-1 through VIS-7. (from Section 3.7, Visual/Aesthetics, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: The Proposed Realignment would not substantially change the characteristics or features of the MCP project and would result in similar visual and aesthetic-related impacts as the MCP project. Therefore, the Proposed Realignment would result in the same permanent and temporary visual and aesthetic-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.7: Measures VIS-1 through VIS-7 would also apply to the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Cultural Resources	
Effects: The alignment of the MCP project along Ramona Expressway that would be replaced by the Proposed Realignment would not impact any documented cultural resources. However, the MCP project could impact previously unknown cultural materials discovered during construction or could result in the discovery of human remains. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures CUL-1 and CUL-2 would address the construction-related impacts of the MCP project related to previously unknown cultural resources and human remains. (from Section 3.8, Cultural Resources, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: A Supplemental HPSR (2014) was prepared to document the change in the APE that would result from the Proposed Realignment. According to the Supplemental HPSR, the Proposed Realignment would not impact any additional cultural resources within the revised APE. As with the MCP project, the Proposed Realignment could impact previously unknown cultural materials discovered during construction or could result in the discovery of human remains. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.8: Measures CUL-1 and CUL-2 would apply during construction of the Proposed Realignment.
Hydrology and Floodplains	
The MCP project would result in the following effects related to hydrology and floodplains. Hydrology: The alignment of the MCP project would cross a number of streambeds or water courses with those resources placed in culverts under the MCP project facility. The MCP project could result in adverse water quality impacts to those streambeds and water courses during project construction and operation. Floodplains: The MCP project would not be located in a 100-year floodplain, would not impact any 100-year floodplains/floodways, or require the modification of the FEMA FIRMS for that area. Applicable Avoidance, Minimization, and/or Mitigation Measures: No measures are required related to floodplains. BMPs would substantially avoid or reduce adverse water quality impacts during project construction and operation. (from Section 3.9, Hydrology and Floodplains, in the Recirculated Draft EIR/ Supplemental Draft EIS)	The Proposed Realignment would result in the following effects related to hydrology and floodplains. Hydrology: The alignment of the Proposed Realignment would cross fewer streams or water courses than the MCP project, with those resources placed in culverts under the MCP project facility. The Proposed Realignment could result in adverse water quality impacts to those streambeds and water courses during project construction and operation. Floodplains: The Proposed Realignment would not be located in a 100-year floodplain, would not impact any 100-year floodplains/floodways, or require the modification of the FEMA FIRMS for that area. Applicable Avoidance, Minimization, and/or Mitigation Measures: No measures are required related to floodplains. BMPs would also apply to the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Water Quality and Storm Water Runoff	
Effects: Grading and construction for the MCP project would disturb and expose approximately 110 acres of soil. As a result, there would be increased potential for soil erosion and sedimentation due to rainfall/runoff and wind compared to existing conditions. The MCP project would result in an increase in impervious area and in the volume of runoff during a storm with a subsequent increase of pollutant loading of receiving waters. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures WQ-1 through WQ-3 would address the operational and construction-related water quality impacts of the MCP project. Measure WQ-4 would also address construction-related water quality impacts of the MCP project. (from Section 3.10, Water Quality and Storm Water Runoff, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: Construction of the Proposed Realignment would disturb approximately 104 acres of soil, and would result in a minor increase in impervious area and in the volume of runoff during a storm. Because these effects would be very similar to the effects under the MCP project, the Proposed Realignment would result in temporary and permanent water quality-related impacts similar to the effects of the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.10: Measures WQ-1 through WQ-3 would apply during operation and construction of the Proposed Realignment. Measure WQ-4 would apply during construction of the Proposed Realignment.
Geology, Soils, Seismic, and Topography	
Effects: The MCP project would be permanently impacted by the potential for ground motion, moderate to severe seismic shaking, liquefaction, and ground rupture. The MCP project would be temporarily impacted by soil compaction and would result in an increased possibility of soil erosion during construction. Applicable Avoidance, Minimization, and/or Mitigation Measures: The permanent and temporary geology, soils, seismic, and topography-related effects on the MCP project would be minimized by compliance with standard design and construction practices, and would be mitigated by Measures GEO-1 through GEO-4. (from Section 3.11, Geology/Soils/Seismic/Topography, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would not change the geological conditions in the area and the Proposed Realignment would be subject to the same potential impacts related to geological conditions as the MCP project. Therefore, the Proposed Realignment would result in the same permanent and temporary geology, soils, seismic, and topography-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.11: Measures GEO-1 through GEO-4 would also apply to the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Paleontology	
Effects: The MCP project could adversely impact paleontological resources as a result of the provision of access to currently inaccessible areas of Riverside County and the Cities of Perris and San Jacinto, and during ground-disturbing activities associated with construction. The area along the MCP project in the vicinity of the Proposed Realignment has a high sensitivity for paleontological resources and, therefore, the MCP project would result in adverse effects on paleontological resources. Applicable Avoidance, Minimization, and/or Mitigation Measures: The permanent paleontological-related effects of the MCP project would be mitigated by Measure PAL-1. (from Section 3.12, Paleontology, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The area along the Proposed Realignment has a high sensitivity for paleontological resources. As a result, the Proposed Realignment would result in the same types of impacts to paleontological resources as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.12: Measure PAL-1 would also apply to the Proposed Realignment.
Hazardous Wastes and Materials	
Effects: The MCP project could result in hazardous materials spills as a result of traffic accidents on the MCP facility; however, impacts related to potential spills on the MCP facility would not be adverse. The MCP project would not affect or be affected by hazardous waste/materials sites in the vicinity of the MCP project, or increase the potential for a hazardous substance release at these sites. Based on the findings of the records search and the site survey, hazardous materials may be encountered during excavation and construction activities for the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures: The temporary hazardous wastes and materials-related effects of the MCP project would be mitigated based on implementation of Measures WQ-1, WQ-2, WQ-3, HW-1 through HW-7, and HW-9 through HW-12. (from Sections Section 3.10, Water Quality and Storm Water Runoff, and 3.13, Hazardous Wastes and Materials, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would not substantively change the characteristics or features of the MCP project and would not increase any hazardous wastes and materials-related effects of the MCP project. Therefore, the Proposed Realignment would result in the same types of permanent and temporary hazardous wastes and materials-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.13: The temporary hazardous wastes and materials-related effects of the Proposed Realignment would be based on implementation of Measures WQ-1, WQ-2, WQ-3, HW-1 through HW-7, and HW-9 through HW-12.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Air Quality	
Effects: The MCP project would result in temporary air-quality related impacts during construction, including fugitive dust from grading/site preparation, equipment exhaust, and use of emulsified asphalt paving materials. The MCP project is not expected to result in any concentrations exceeding the 1-hour or 8-hour CO standards, and meets the CAA requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The MCP project would result in a slight increase in MSAT emissions in the project vicinity compared to the No Build Alternative. When compared to the 2008 Baseline, the MCP project would reduce vehicle air emissions in the region. When compared to the 2020 and 2040 No Build Alternative conditions, the MCP project would result in an increase in very small (less than 1 percent) increases in air emissions. As a result, operation of the MCP project would not contribute substantially to regional vehicle emissions. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures AQ-1 through AQ-5 would address the construction-related air quality impacts of the MCP project. (from Section 3.14, Air Quality, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The construction and operation of the Proposed Realignment would be similar to the construction and operation of the MCP project. The Proposed Realignment would not substantively change the amount of soil disturbed or air emissions generated during construction. Traffic volumes, levels of service, and the traffic-related air emissions under the Proposed Realignment would not change substantively compared to the MCP project. As a result, the temporary and permanent air quality effects of the Proposed Realignment would be the same as under the MCP project. At a local level within the 1.5-mile realignment area, no air quality impacts would occur because there are no residential land uses or other sensitive receptors that exist today. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.14: Measures AQ-1 through AQ-5 would address the construction-related air quality impacts of the Proposed Realignment. No measures for operational impacts are proposed.
Noise	
Effects: The MCP project would result in temporary noise-related impacts during project construction due to noise generated by construction crew commute traffic, the transport of construction equipment and materials to the project site, and noise generated by road construction activities. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures N-2 through N-5 would address the construction-related noise impacts of the MCP project. Measure N-1 would reduce operational noise as a result of the MCP project. (from Section 3.15, Noise, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The construction and operation of the Proposed Realignment would be very similar to the construction and operation of the MCP project. The Proposed Realignment would not substantively change the existing and projected traffic load capacity of the MCP project, and would provide the same traffic capacity as the MCP project. As a result, the temporary and permanent noise effects of the Proposed Realignment would be similar to the effects under the MCP project. At a local level within the 1.5-mile realignment area, no noise impacts would occur because there are no residential land uses or other sensitive receptors that exist today. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.15: Measures N-2 through N-5 would address the construction-related noise

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
	impacts of the Proposed Realignment.
Energy	
Effects: The MCP project would not result in a substantial direct permanent increase in energy consumption during operation. The MCP project would result in a minimal temporary increase in energy consumption during construction, and would result in a nominal regional permanent increase in energy consumption. Applicable Avoidance, Minimization, and/or Mitigation Measures: No mitigation is required. (from Section 3.16, Energy, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The construction and operation of the Proposed Realignment would be very similar to the construction and operation of the MCP project. As a result, the Proposed Realignment would not substantially change the energy consumption of the MCP project and would result in the same direct and indirect permanent, temporary, and regional energy-related effects as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.16: No mitigation is required.
Natural Communities	
Effects: The MCP project would result in the following effects on plant communities: Cropland: 40.1 acres Riversidean upland sage scrub: 4.1 acres **Total: 44.2 acres** Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures NC-1 through NC-6 address the potential impacts of the MCP project related to natural communities. (from Section 3.17, Natural Communities, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: The Proposed Realignment would result in the following effects on plant communities: Cropland: 54.7 acres Riversidean Upland sage scrub: 2.3 acres **Total: 57.0 acres** Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.17: Measures NC-1 through NC-6 would also apply to the Proposed Realignment.
Wetlands and Other Waters	
Effects: The MCP project would not impact any wetlands. The MCP project would result in temporary and permanent impacts to 1.1 acres of nonwetland waters under USACE jurisdiction. The MCP project would also result in temporary and permanent effects to 1.1 acres of riparian habitat and streambeds under the CDFW jurisdiction. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures	Effects: The Proposed Realignment would not impact any wetlands. Proposed Realignment would result in impacts to 0.9 acre of nonwetland waters under USACE jurisdiction, and 0.9 acre of riparian habitat and streambeds under the CDFW jurisdiction. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.18: Measures WET-1 through WET-2 would also apply to the Proposed

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
WET-1 through WET-4 address the potential impacts of the MCP project related to wetlands and other waters. (from Section 3.18, Wetlands and Other Waters, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Realignment.
Plant Species	
Effects: The MCP project would result in indirect impacts on smooth tarplant and Coulter's goldfields, including increased fire risk, invasive species infestations, unauthorized recreational use, pollutants, and localized changes in water velocity. The MCP project could temporarily disturb plant species during grading and other construction-related activities. Applicable Avoidance, Minimization, and/or Mitigation Measures: The permanent and temporary effects on plant species would be mitigated by Measures NC-1 and NC-2 in Section 3.17, U&ES-5 and U&ES-6 in Section 3.5, and PS-1 in Section 3.19. (from Sections 3.17, Natural Communities; 3.5, Utilities, and Emergency Services; and 3.19, Plant Species, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would result in the same types of indirect impacts on smooth tarplant and Coulter's goldfields as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.19: Measures NC-1, NC-2, U&ES-5, U&ES-6, and PS-1 in the Recirculated Draft EIR/Supplemental Draft EIS would also apply to the Proposed Realignment.
Animal Species	
Effects: The MCP project would result in 39.0 acres of direct permanent impacts to LAPM occupied habitat suitable for long-term conservation. The MCP project could temporarily disturb animal species as a result of construction noise, light, vibration, dust, and human encroachment. Applicable Avoidance, Minimization, and/or Mitigation Measures: Mitigation for impacts to the burrowing owl, LAPM, and other animal species under the Western Riverside County MSHCP will be achieved through project consistency with the Western Riverside County MSHCP. Temporary effects to sensitive animal species during construction of the MCP project would be mitigated by Measures AS-1 through AS-7. (from Section 3.20, Animal Species in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would result in 18.6 acres of direct permanent impacts to LAPM occupied habitat suitable for long-term conservation. The Proposed Realignment Project could temporarily disturb animal species as a result of construction noise, light, vibration, dust, and human encroachment. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.20: The Western Riverside County MSHCP and Measures AS-1 through AS-7 would also apply to the Proposed Realignment.

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
Threatened and Endangered Species	
Effects: The MCP project would not include areas of designated and proposed critical habitat for any threatened or endangered species. Therefore, the MCP project would not impact areas known to consist of suitable habitat for other listed species, and areas within the MCP project right of way determined to have long-term conservation value for MSHCP survey species. Applicable Avoidance, Minimization, and/or Mitigation Measures: No mitigation related to threatened and endangered species is applicable to the MCP project. (from Section 3.21, Threatened and Endangered Species, in the Recirculated Draft EIR/Supplemental Draft EIS)	Effects: The Proposed Realignment would not include areas designated and proposed critical habitat for any threatened or endangered species. Therefore, the construction and operation of the Proposed Realignment would not impact areas known to consist of suitable habitat for other listed species, and areas within the MCP project right of way determined to have long-term conservation value for MSHCP survey species. Applicable Avoidance, Minimization, and/or Mitigation Measures: No mitigation related to threatened and endangered species is applicable to the Proposed Realignment.
Invasive Species	
Effects: Construction of the MCP project could result in the spread of invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that the seed is spread along the highway. Operation of the MCP project could result in the minimal spreading of invasive species because areas adjacent to the MCP project will be landscaped with native species that should outcompete the invasive species. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures IS-1 through IS-6 would address the construction-related invasive species impacts of the MCP project. No mitigation is required for long-term effects related to invasive species. (from Section 3.22, Invasive Species, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: The alignment and design of the Proposed Realignment would be similar to the MCP project. The construction and operation of the Proposed Realignment would be similar to the construction and operation of the MCP project. As a result, the Proposed Realignment would result in impacts during construction and operation related to invasive species similar to the impacts under the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.22: Measures IS-1 through IS-6 would apply during construction of the Proposed Realignment. No mitigation is required for long-term effects related to invasive species.
Global Climate Change	
Effects: The analysis in the 2014 Recirculated Sections of Chapter 4.0 (III, Air Quality; VII, Greenhouse Gases; 4.5, Climate Change; and Table 4.10) of the Recirculated Draft EIR, concluded that the MCP project would result in short-term construction and the long-term operational GHG emissions that would be	Effects: The Proposed Realignment would not substantively change the amount of soil disturbed or air emissions generated during construction or operation of the MCP facility. Traffic volumes, levels of service, and traffic-related air emissions under the Proposed Realignment would not change substantively

Table 2.5.C Effects of the MCP Project and the Proposed Realignment to Avoid the San Jacinto Wildlife Area

Effects of the MCP Project as Described in the Recirculated Draft EIR/ Supplemental Draft EIS (January 2013)	Effects of the Proposed Realignment to Avoid the San Jacinto Wildlife Area
significant and unavoidable impacts under CEQA based on the SCAQMD's significance thresholds. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures AQ-1 and AQ-2 would address construction-related air quality effects of the MCP project. No mitigation for long-term effects is proposed. (from Revised Section 4.4, III, Air Quality, in the 2014 Recirculated Sections of Chapter 4.0 [III, Air Quality; VII, Greenhouse Gases; 4.5, Climate Change; and Table 4.10] of the Recirculated Draft EIR)	compared to the MCP project. As a result, similar to the MCP project, the Proposed Realignment would result in significant and unavoidable adverse short- and long-term adverse impacts related to the generation of GHG emissions. Applicable Avoidance, Minimization, and/or Mitigation Measures: Measures AQ-1 and AQ-2 would address construction-related air quality effects of the MCP project. No mitigation for long-term effects is proposed.
Cumulative Impacts	
Effects: The MCP project, when considered with the effects of other cumulative projects, would contribute to cumulative adverse effects related to growth, farmlands, relocations, visual/aesthetics, cultural resources, paleontology, noise, natural communities, wetlands and other waters, plant species, animal species, and threatened and endangered species. Applicable Avoidance, Minimization, and/or Mitigation Measures: No measures, beyond those described in the EIR/EIS would be necessary to address the contribution of the MCP project to cumulative impacts. (from Section 3.25, Cumulative Impacts, in the Recirculated Draft EIR/ Supplemental Draft EIS)	Effects: The Proposed Realignment would provide the same type of transportation facility as the MCP project and would result in the same or very similar environmental impacts compared to the MCP project. As a result, the Proposed Realignment, when considered with the effects of other cumulative projects, would contribute to cumulative adverse effects related to the same environmental parameters as the MCP project. Applicable Avoidance, Minimization, and/or Mitigation Measures from Section 3.25: No measures, beyond those described in the EIR/EIS would be necessary to address the contribution of the MCP project to cumulative impacts.

APE = Area of Potential Effect
BMPs = Best Management Practices
CAA = Clean Air Act
CDFW = California Department of Fish and Wildlife
CEQA = California Environmental Quality Act
CFR = Code of Federal Regulations
CO = carbon monoxide
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
FEMA = Federal Emergency Management Agency
FIRMS = Flood Insurance Rate Maps
GHG = greenhouse gas
HPSR = Historic Property Survey Report
HSR = Historic Property Survey Report
I-215 = Interstate 215
LAPM = Los Angeles Pocket Mouse
MCP = Mid County Parkway
MSAT = mobile source air toxics
MSHCP = Multispecies Habitat Conservation Plan
NRCS = Natural Resources Conservation Service
SCAQMD = South Coast Air Quality Management District
SKR HCP = Stephens' Kangaroo Rat Habitat Conservation Plan
TCEs = temporary construction easements
USACE = United States Army Corps of Engineers

Based on the analyses provided in Table 2.5.A, because the Proposed Realignment would not individually or cumulatively result in new adverse environmental impacts, and no new avoidance, minimization, and/or mitigation measures would be required, and it would avoid the permanent incorporation of land from the San Jacinto Wildlife Area into the MCP facility, RCTC and FHWA have incorporated the Proposed Realignment into the alignment of Alternative 9 Modified. Therefore, the preferred alternative identified in the Checkpoint 3 LEDPA process now includes that realignment. The realignment has been incorporated in the figures, text, and analyses in this Final EIR/EIS.

2.5.6.2 Design Refinements to Reduce Impacts to the Los Angeles Pocket Mouse and other Species Covered Under the Western Riverside County Multiple Species Habitat Conservation Plan

The following additional design refinements made after the identification of the preferred alternative identified in the Checkpoint 3 LEDPA process would further reduce impacts of the MCP project as follows:

- The MCP alignment between approximately Antelope Road to the west and Bernasconi Road on the east would result in permanent impacts to Los Angeles pocket mouse habitat. RCTC evaluated design features that would reduce the acreage of impacts to that habitat after the identification of Alternative 9 Modified as the preferred alternative. Based on that evaluation, RCTC identified three retaining walls, shown on Figure 2.5a, that would reduce the impacts of the MCP on Los Angeles pocket mouse habitat, as part of the Western Riverside County MSHCP Consistency Determination process with the Wildlife Agencies and the RCA. Those three walls total 5,203 linear feet of retaining walls along the north side of the MCP (3,122 feet, 1,484 feet, and 597 feet, respectively). The use of those retaining walls resulted in a reduction of 23.1 acres of Los Angeles pocket mouse habitat impacted by Alternative 9 Modified. Because these walls would reduce impacts on that habitat, RCTC and FHWA have incorporated those three retaining walls into the design of Alternative 9 Modified. Therefore, the preferred alternative identified in the Checkpoint 3 LEDPA process now includes those retaining walls.

2.5.7 Conceptual Plans for the Preferred Alternative

Conceptual plans for Alternative 9 Modified with the SJRB DV were developed by RCTC. Those conceptual plans are provided in Attachment H in Appendix I, Supplemental Chapter 2 Attachments.

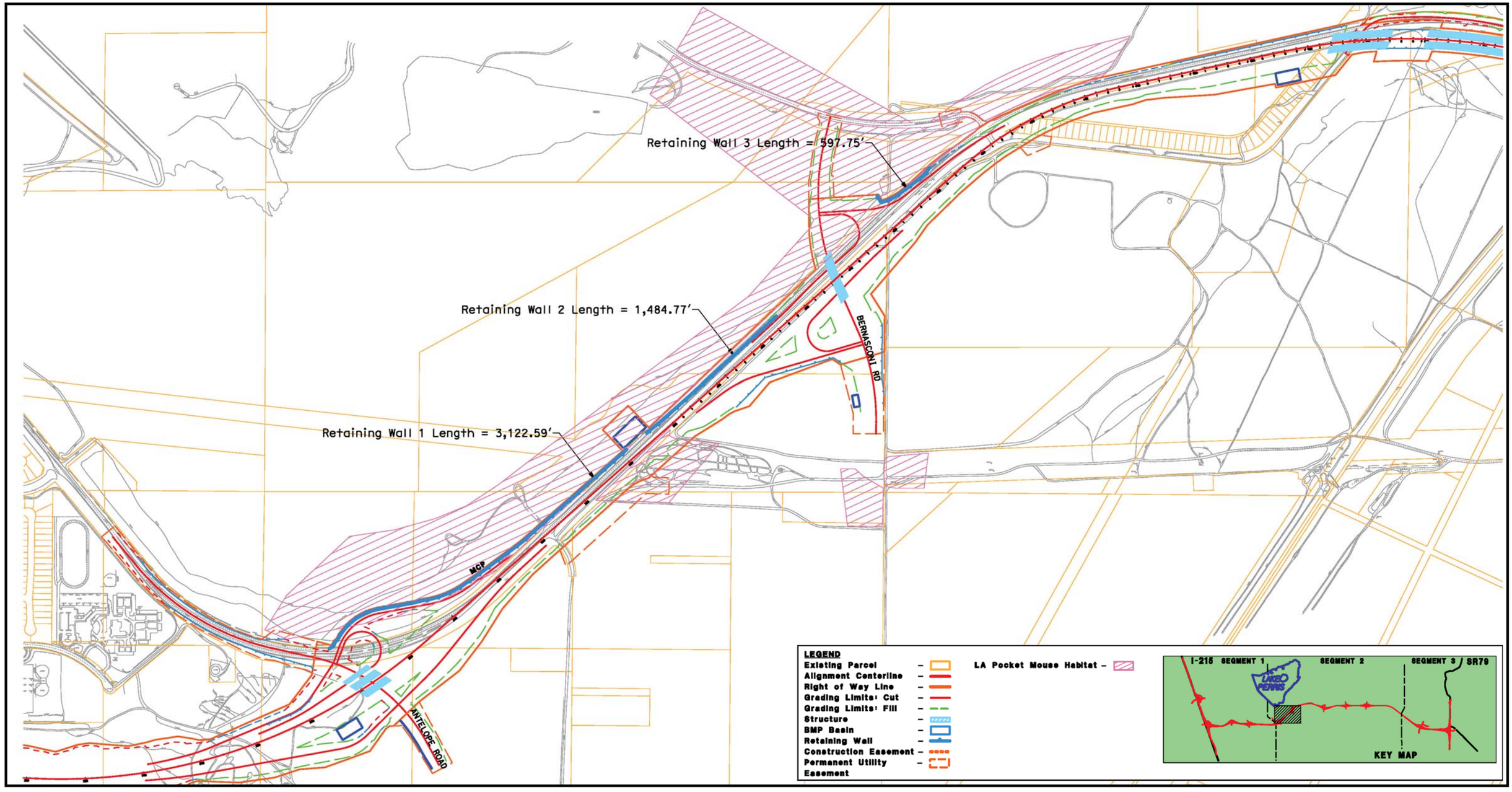

Figure 2.5.a

0 200 400 Feet

SOURCE: Jacobs Engineering (2014)

I:\JVC531\G_Mod\Antelope_Bernasc_Retaining Wall.cdr (9/18/14)

Retaining Walls to Reduce Effects on
Los Angeles Pocket Mouse Habitat
08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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2.5.8 Cost Estimate for the Preferred Alternative

The project cost estimate for Alternative 9 Modified with the SJRB DV was adjusted to reflect the design refinements discussed above in Section 2.5.6. The cost estimate for the preferred alternative is provided in Table 2.5.D.

Table 2.5.D Preliminary Cost Estimate for Alternative 9 Modified with the SJRB Design Variation (Preferred Alternative)

Cost Breakdown	Estimated Costs ($ billion)
Right of Way	0.237
Roadway and Structures	1.013
Environmental Mitigation	0.100
Construction (Build Cost Subtotal)	**1.350**
Engineering	0.226
Construction Management	0.156
Total Cost	**1.732**

Source: Final Project Report (2015).

2.6 Alternatives Considered and Withdrawn from Further Study

2.6.1 Alternatives Formally Considered and Withdrawn

Several alternatives were evaluated and eliminated from further study during the alternatives refinement and EIR/EIS process. Below is a brief summary of the alternatives development process and discussion of alternatives that were considered and withdrawn from further study; see also Table 2.6.A for a summary of these alternatives and the decisions to remove these alternatives from further study. Also, refer to Section 2.2 for additional information about the process undertaken to develop, refine, and modify alternatives evaluated in the technical studies for the EIR/EIS process.

The alternatives development process for the MCP project began with the HCLE Corridor studies conducted for the CETAP. A Draft Tier 1 EIS/EIR was prepared for the HCLE Corridor and circulated for public review in July 2002. The Draft EIS/EIR considered 14 Build alternatives that extended from San Jacinto/Hemet on the east to Corona/Lake Elsinore on the west. These alternatives included highway alternatives, as well as transit options such as expanded bus and commuter rail services. Several alternatives were variations of routes along Ramona Expressway and Cajalco/El Sobrante Road, at the northwestern portion of the HCLE study area.

Table 2.6.A Summary of Alternatives Withdrawn from Further Study

Alternative Number	Alternative Name	Description	Comment
2	North Lake Mathews/ North Perris Alternative	Provide a six- to eight-lane, limited-access facility north of Lake Mathews and a north alignment through the city of Perris.	This alternative was eliminated due to engineering safety concerns regarding proximity to the Lake Perris Dam, Cajalco Dam, and Metropolitan facilities, as stated in letters from Metropolitan dated May 13, 2005, and the DWR dated August 19, 2005.
3	North Lake Mathews/ South Perris Alternative	Provide a six- to eight-lane, limited-access facility north of Lake Mathews and a south alignment through the city of Perris.	This alternative was eliminated due to engineering safety concerns regarding proximity to Cajalco Dam and Metropolitan facilities, as stated in a letter from Metropolitan dated May 13, 2005.
4	South Lake Mathews/North Perris (Drain) Alternative	Provide a six- to eight-lane controlled-access parkway located south of Lake Mathews that follows a northern alignment through the City of Perris, adjacent to the Perris Drain.	Identified through initial planning and rerouted as a result of engineering feasibility issues identified in engineering studies and the Value Analysis study conducted by Caltrans in 2005. This alternative was eliminated due to the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.
5	South Lake Mathews/ South Perris (Rider Street) Alternative	Provide a six- to eight-lane controlled-access parkway located south of Lake Mathews that follows a southern alignment through the City of Perris along Rider Street.	Identified through initial planning. This alternative was eliminated due to the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.
6	General Plan/ North Perris (Drain) Alternative	Implementation of General Plan Circulation Element improvements between I-15 and El Sobrante Road and a new six- to eight-lane controlled-access parkway east of El Sobrante Road to SR-79. Includes a four-lane urban arterial north of Lake Mathews, a four-lane controlled-access expressway south of Lake Mathews, west of El Sobrante Road, and a six- to eight-lane controlled access parkway east of El Sobrante Road. Alternative 6 follows a northern alignment through the City of Perris.	Identified through initial planning and rerouted as a result of engineering feasibility issues identified in engineering studies and the Value Analysis study conducted by Caltrans in 2005. This alternative was eliminated due to the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.

Table 2.6.A Summary of Alternatives Withdrawn from Further Study

Alternative Number	Alternative Name	Description	Comment
7	General Plan/ South Perris Alternative	Implementation of General Plan Circulation Element improvements between I-15 and El Sobrante Road and a new six- to eight-lane controlled-access parkway east of El Sobrante Road to SR-79. Includes a four-lane urban arterial north of Lake Mathews, a four-lane controlled-access expressway south of Lake Mathews, west of El Sobrante Road, and a six- to eight-lane controlled access parkway east of El Sobrante Road. Alternative 6 follows a southern alignment through the City of Perris along Rider Street.	Identified through initial planning. This alternative was eliminated due to the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.
9	Far South/ Placentia Avenue Alternative	Provide a four- to six-lane controlled-access parkway south of both Lake Mathews and Mead Valley and a six- to eight-lane controlled-access parkway between Old Elsinore Road and I-215 and a six- to eight-lane controlled-access parkway between I-215 and SR-79.	Identified in engineering studies and the Value Analysis study conducted by Caltrans in 2005 to avoid the Metropolitan Habitat Conservation Plan Reserve. This alternative was eliminated due to the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.

Source: LSA Associates, Inc. (2011).
Caltrans = California Department of Transportation
DWR = State Department of Water Resources
EIR/EIS = Environmental Impact Report/Environmental Impact Statement
I-15 = Interstate 15
I-215 = Interstate 215
Metropolitan = Metropolitan Water District of Southern California
SR-79 = State Route 79

Transportation analyses were conducted for these and other alternatives to the south, along portions of State Route 74 (SR-74), Domenigoni Parkway, Ethanac Road, and Newport Road. The analyses indicated the alternative with the greatest transportation benefit was located along Ramona Expressway, Cajalco Road, and El Sobrante Road, with a connection to Interstate 15 (I-15). This alternative demonstrated that it best met traffic needs by providing the greatest benefits in terms of increases in speed, reductions in travel time, and congestion relief. The HCLE alternatives in this area (Alternatives 1A/ 1B and H1/H3) demonstrated more than twice the traffic benefit as measured in travel

hours saved per year compared with the other HCLE alternatives. In addition, public comments identified concerns regarding adverse impacts to existing communities for the portion of the alternatives located north of Lake Mathews. As a result of the information contained in the Draft Tier 1 EIR/EIS regarding transportation benefits, and the community input received on the HCLE alternatives, the RCTC Board accepted a staff recommendation in June 2003 to proceed with the preparation of a project-level environmental document for an east-west alternative that included the Ramona Expressway/Cajalco Road alignment located south of Lake Mathews. This action by RCTC terminated the Tier 1 study efforts and began a focused, project-level study effort for the Cajalco Ramona Corridor, which was later renamed the MCP.

An initial set of eight alternatives was presented to the public in scoping meetings in December 2004 for the project-level study for MCP. After the Notice of Intent (NOI) and Notice of Preparation (NOP) were published in 2004, Caltrans conducted a *Value Analysis Study* in April 2005 to determine whether there were additional alignment refinements that could more effectively and efficiently meet the project purpose and need. As a result of the *Value Analysis Study*, new information became available with regard to the practicability of some of the alternative alignments, as well as opportunities to further avoid or minimize adverse environmental impacts to existing habitat reserves, Section 404 aquatic resources, Section 4(f) properties, and existing communities. In addition, during this same period, the MCP engineering and environmental project team conducted engineering studies, environmental studies, field work, public scoping meetings, and traffic modeling for the MCP project. Based on these studies and analyses, the MCP Resource Agency Coordination group considered and approved a refined set of alternatives to be evaluated in the Draft EIR/EIS. The revised set of alternatives included the following changes:

- Eliminated the two alternatives (Alternatives 2 and 3) that included a parkway north of Lake Mathews due to engineering feasibility issues;
- Rerouted a segment of Alternatives 4 and 6 away from the Perris Dam;
- Renumbered Alternative 8 to Alternative 1B (No Build/No Action General Plan Circulation Element Conditions); and
- Added Alternative 9, the Far South Alternative, which avoided the Metropolitan Water District of Southern California (Metropolitan) reserve lands established by the Lake Mathews MSHCP.

These 32 miles of parkway alternatives (Alternatives 4, 5, 6, 7, and 9) between I-15 in the west and SR-79 in the east were evaluated in a Draft EIR/EIS circulated for public review

from October 2008 to January 2009. As discussed in detail in Chapter 1 of this Final EIR/EIS, the 32 miles of parkway alternatives (Alternatives 4, 5, 6, 7, and 9) between I-15 in the west and SR-79 in the east were eliminated from further analysis as a result of the modification to the project limits in response to the concerns expressed during public review of the Draft EIR/EIS circulated October 2008 to January 2009.

2.7 Permits and Approvals Needed

The permits, reviews, and approvals list in Table 2.7.A are anticipated to be required for the proposed MCP project.

RCTC will advertise, award, and administer the construction contracts for the MCP project.

The project is subject to federal, as well as state, environmental review requirements because federal funds were used for the preliminary engineering phase of the project, permits are required from federal agencies, and the project requires FHWA approval of a new connection to the federal Interstate highway system at I-215. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. RCTC is the project proponent and the lead agency under CEQA and has adopted guidelines for implementing CEQA. FHWA is the lead agency under NEPA, in cooperation with Caltrans. The NOI for the MCP project was published in November 2004 (prior to the August 10, 2005, effective date for the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users [SAFETEA-LU]); therefore, the project is not required to follow the environmental review process required by Section 6002 of SAFETEA-LU.

USACE is a cooperating agency for the MCP project under NEPA, pursuant to the Council on Environmental Quality regulations (40 CFR 1501.6), while the County of Riverside, the Cities of Perris and San Jacinto, and the CDFW are Responsible Agencies under CEQA. Following certification of the Final EIR/EIS by RCTC and FHWA, in cooperation with Caltrans, these agencies intend to adopt the EIR/EIS for purposes of independent CEQA/NEPA compliance responsibilities related to the discretionary state and federal actions, including General Plan Amendments by the County of Riverside and the Cities of Perris and San Jacinto or permit approvals by USACE.

Table 2.7.A Permits and Approvals Needed

Agency	Permit/Approval	Status/Timeline
United States Fish and Wildlife Service (USFWS)	• Section 7 consultation for Threatened and Endangered Species • Review Riverside County Transportation Commission (RCTC's) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Determination pursuant to RCTC's Section 10 permit as an MSHCP permittee • Concurrence on Determination of Biologically Equivalent or Superior Preservation (DBESP) pursuant to RCTC's Section 10 permit as an MSHCP permittee	1. The USFWS issued the Section 7 Biological Opinion on February 11, 2015 (see Appendix W, Biological Opinion). 2. The MSHCP Consistency Determination and DBESP were reviewed by USFWS and the DBESP was concurred on November 14, 2014 (see Appendix T, Western Riverside County Multiple Species Habitat Conservation Plan Consistency Determination).
United States Army Corps of Engineers (USACE)	• Section 404 Permit (either an Individual Permit or one or more Nationwide Permits) for the discharge of dredged or fill material into waters of the United States; a Section 408 permit will not be required	Application for an Individual Permit was submitted by RCTC to USACE on February 11, 2015**.** If an Individual Permit is used for the MCP project instead of one or more Nationwide Permits, then USACE approval will occur after FHWA approves ROD, and USACE will issue its own ROD for the permit decision based on this Final EIR/EIS.
California Department of Fish and Wildlife (CDFW)	• Section 1602 Lake and Streambed Alteration Agreement • Review RCTC's MSHCP Consistency Determination • Concurrence on DBESP	1. Section 1602 Notification is to be submitted and agreement obtained prior to the start of construction. 2. The MSHCP Consistency Determination and DBESP were reviewed by CDFW and the DBESP was concurred on November 14, 2014 (see Appendix T, Western Riverside County Multiple Species Habitat Conservation Plan Consistency Determination).
California Department of Transportation District 8	• Route Adoption	• RCTC will submit a request to Caltrans for Route Adoption prior to the MCP project being operational.
	• Freeway Agreements with County of Riverside, Cities of Perris and San Jacinto	• Freeway Agreements would be executed following Route Adoption.
	• Construction Encroachment Permit	• Construction Encroachment Permit will be obtained prior to start of construction.
	• Freeway Maintenance Agreement	• Freeway Maintenance Agreement will be executed following Route Adoption.
	• PS&E and Construction Cooperative	• PS&E and Construction Cooperative Agreements will be executed prior to start of PS&E and construction, respectively.

Table 2.7.A Permits and Approvals Needed

Agency	Permit/Approval	Status/Timeline
	• National Pollutant Discharge Elimination System Permit No. CAS000003 and General Construction Permit CAS000002	• RCTC will require the construction contractors to comply with the conditions in these permits prior to and during construction
	• Storm Water Pollution Prevention Plan	• RCTC will require the construction contractors to comply with the Storm Water Pollution Prevention Plan prior to and during construction
State Water Resources Control Board	• Water Discharge Permit, approval of Notice of Intent to comply with General Construction Activity National Pollutant Discharge Elimination System (NPDES) Permit.	Application to be submitted prior to construction.
Western Riverside County Regional Conservation Authority (RCA)	• Concur on and approve RCTC's MSHCP Consistency Determination • Concur on and approve RCTC's DBESP • Concur on and approve RCTC's Public/Quasi-Public Equivalency Determination (per MSHCP, Section 3.2.1)	The MSHCP Consistency Determination, DBESP, and Public/Quasi-Public Equivalency Determination were concurred on by the RCA on August 20, 2014 (see RCA letter in Appendix T).
Region 8, Santa Ana Regional Water Quality Control Board (RWQCB)	• Section 401 Water Quality certification	Application to be submitted following FHWA Record of Decision.
County of Riverside, Cities of Perris and San Jacinto	• Freeway Agreement with Caltrans should the MCP project be adopted as a State Highway by the California Transportation Commission • Approval of encroachment permits and street construction permits, street closures and re-routing, and associated improvements in the public right of way • General Plan Amendment	Actions/permits would be issued prior to start of construction.
Riverside County Flood Control and Water Conservation District	• Encroachment permits and/or cooperative agreements for improvements in District rights of way or easements affecting District facilities	Application(s) to be submitted prior to construction.
Riverside County Environmental Health Department and California Department of Transportation (Caltrans)	• Aboveground storage tank (AST)/underground storage tank (UST) permits • Caltrans Statewide permit (Order No. 99-06-DWQ), NPDES No. CAS000003	Permit to be requested if project acquires parcels with ASTs or USTs on site.

Table 2.7.A Permits and Approvals Needed

Agency	Permit/Approval	Status/Timeline
State Historic Preservation Officer (SHPO)	• Approval of a Memorandum of Agreement with Federal Highway Administration (FHWA)	SHPO approval of the Memorandum of Agreement occurred on October 30, 2014. The MOA is included in Appendix U of this Final EIR/EIS.
Interested Native American Tribes	• Required consultation under Section 106 of the National Historic Preservation Act on the overall project cultural work, including (but not limited to) determinations of eligibility, findings of effect, and future work that includes involvement with the Memorandum of Agreement, Archaeological Monitoring Plan, and Data Recovery Plan.	Native American consultation for the MCP is ongoing, and will continue through project design and construction as described in the Memorandum of Agreement in Appendix U.
Utilities	• Approvals to relocate, protect in place, or remove utility facilities	Prior to any construction activities that would affect utility facilities.
Burlington Northern Santa Fe (BNSF) Railroad Company	• Memorandum of Understanding and a Construction and Maintenance Agreement between RCTC and BNSF • Approval of the proposed action, based on review of the Construction and Maintenance Agreement between RCTC and BNSF	Prior to any construction within or above railroad right of way.
California Public Utilities Commission (CPUC)	• General Order 131-D for relocation of electrical transmission lines between 50 to 200 kilowatts • Certificate of Public Convenience and Necessity for relocations to electrical transmission lines and gas lines	1. Prior to any construction within or above railroad right of way. 2. After certification of EIR/EIS and the filing of a Notice of Determination to complete the CEQA process.

CEQA = California Environmental Quality Act
EIR = Environmental Impact Report
EIS = Environmental Impact Statement
MCP = Mid County Parkway
ROD = Record of Decision